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OEIM6Q - WOODARD STARK

Ensuring Digital Accessibility through Process and Policy provides readers with a must-have resource to digital accessibility from both a technical and policy perspective. Inaccessible digital interfaces and content often lead to forms of societal discrimination that may be illegal under various laws. This book is unique in that it provides a multi-disciplinary understanding of digital accessibility. The book discusses the history of accessible computing, an understanding of why digital accessibility is socially and legally important, and provides both technical details (interface standards, evaluation methods) and legal details (laws, lawsuits, and regulations). The book provides real-world examples throughout, highlighting organizations that are doing an effective job with providing equal access to digital information for people with disabilities. This isn't a book strictly about interface design, nor is it a book strictly about law. For people who are charged with implementing accessible technology and content, this book will serve as a one-stop guide to understanding digital accessibility, offering an overview of current laws, regulations, technical standards, evaluation techniques, as well as best practices and suggestions for implementing solutions and monitoring for compliance. This combination of skills from the three authors—law, technical, and research, with experience in both corporate, government, and educational settings, is unique to this book, and does not exist in any other book about any aspect of IT accessibility. The authors' combination of skills marks a unique and valuable perspective, and provides insider knowledge on current best practices, corporate policies, and technical instructions. Together, we can ensure that the world of digital information is open to all users. Learn about the societal and organizational benefits of making information technology accessible for people with disabilities Understand the interface guidelines, accessibility evaluation methods, and compliance monitoring techniques, needed to ensure accessible content and technology. Understand the various laws and regulations that require accessible technology Learn from case

studies of organizations that are successfully implementing accessibility in their technologies and digital content

The official journal of the Organization of Educational Historians The American Educational History Journal is a peer-reviewed, national research journal devoted to the examination of educational topics using perspectives from a variety of disciplines. The editors of AEHJ encourage communication between scholars from numerous disciplines, nationalities, institutions, and backgrounds. Authors come from a variety of disciplines including political science, curriculum, history, philosophy, teacher education, and educational leadership. Acceptance for publication in AEHJ requires that each author present a well-articulated argument that deals substantively with questions of educational history. AEHJ accepts papers of two types. The first consists of papers that are presented each year at our annual meeting. The second type consists of general submission papers received throughout the year. General submission papers may be submitted at any time. They will not, however, undergo the review process until January when papers presented at the annual conference are also due for review and potential publication. For more information about the Organization of Educational Historians (OEH) and its annual conference, visit the OEH web site at: www.edhistorians.org.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. This is the brief version of Calculus and Its Applications, Thirteenth Edition, containing chapters 1–9. Calculus and Its Applications, Thirteenth Edition is a comprehensive, yet flexible, text for students majoring in business, economics, life science, or social sciences. The authors delve into greater mathematical depth than other texts while motivating students through relevant, up-to-date, applications drawn from students' major fields of study. The authors motivate key ideas geometrically and intuitively, providing a solid foundation for the more abstract treatments that follow. Every chapter includes a large quantity of exceptional exercises—a hallmark of this text—that address skills, appli-

cations, concepts, and technology. The Thirteenth Edition includes updated applications, exercises, and technology coverage. The authors have also added more study tools, including a prerequisite skills diagnostic test and a greatly improved end-of-chapter summary, and made content improvements based on user reviews. Though a US China conflict is far from inevitable, major tensions are building in the Asia-Pacific region. These strains are the result of historical enmity, cultural divergence, and deep ideological estrangement, not to mention apprehensions fueled by geopolitical competition and the closely related "security dilemma." Despite worrying signs of intensifying rivalry, few observers have provided concrete paradigms to lead this troubled relationship away from disaster. This book is dramatically different in that Lyle J. Goldstein's focus is on laying bare both US and Chinese perceptions of where their interests clash and proposing new paths to ease bilateral tensions through compromise. Each chapter contains a "cooperation spiral" —the opposite of an escalation spiral—to illustrate these policy proposals. Goldstein makes one hundred policy proposals over the course of this book to inaugurate a genuine debate regarding cooperative policy solutions to the most vexing problems in US-China relations. Goldstein not only parses findings from American scholarship but also breaks new ground by analyzing hundreds of Chinese-language sources, including military publications, never before evaluated by Western experts. Meeting China Halfway, new in paperback, remains a refreshing and unique contribution to the study of the world's most important bilateral relationship.

Fluid mechanics is the study of how fluids behave and interact under various forces and in various applied situations, whether in liquid or gas state or both. The author of Advanced Fluid Mechanics compiles pertinent information that are introduced in the more advanced classes at the senior level and at the graduate level. "Advanced Fluid Mechanics courses typically cover a variety of topics involving fluids in various multiple states (phases), with both elastic and non-elastic qualities, and flowing in com-

plex ways. This new text will integrate both the simple stages of fluid mechanics ("Fundamentals") with those involving more complex parameters, including Inviscid Flow in multi-dimensions, Viscous Flow and Turbulence, and a succinct introduction to Computational Fluid Dynamics. It will offer exceptional pedagogy, for both classroom use and self-instruction, including many worked-out examples, end-of-chapter problems, and actual computer programs that can be used to reinforce theory with real-world applications. Professional engineers as well as Physicists and Chemists working in the analysis of fluid behavior in complex systems will find the contents of this book useful. All manufacturing companies involved in any sort of systems that encompass fluids and fluid flow analysis (e.g., heat exchangers, air conditioning and refrigeration, chemical processes, etc.) or energy generation (steam boilers, turbines and internal combustion engines, jet propulsion systems, etc.), or fluid systems and fluid power (e.g., hydraulics, piping systems, and so on) will reap the benefits of this text. Offers detailed derivation of fundamental equations for better comprehension of more advanced mathematical analysis Provides groundwork for more advanced topics on boundary layer analysis, unsteady flow, turbulent modeling, and computational fluid dynamics Includes worked-out examples and end-of-chapter problems as well as a companion web site with sample computational programs and Solutions Manual A classic textbook on the principles of Newtonian mechanics for undergraduate students, accompanied by numerous worked examples and problems.

Vitalism is understood as impacting the history of the life sciences, medicine and philosophy, representing an epistemological challenge to the dominance of mechanism over the last 200 years, and partly revived with organicism in early theoretical biology. The contributions in this volume portray the history of vitalism from the end of the Enlightenment to the modern day, suggesting some reassessment of what it means both historically and conceptually. As such it includes a wide range of material, employing both historical and philosophical methodologies, and it is divided fairly evenly between 19th and 20th century historical treatments and more contemporary analysis. This volume presents a significant contribution to the current literature in the history and philosophy of science and the history of medicine.

Previous ed. published in 1997 under the title: *The loom of God: mathematical tapestries at the edge of time*, by Plenum Press.

This textbook covers all the standard introductory topics in classical mechanics, including Newton's laws, oscillations, energy, momentum, angular momentum, planetary motion, and special relativity. It also explores more advanced topics, such as normal modes, the Lagrangian method, gyroscopic motion, fictitious forces, 4-vectors, and general relativity. It contains more than 250 problems with detailed solutions so students can easily check their understanding of the topic. There are also over 350 unworked exercises which are ideal for homework assignments. Password protected solutions are available to instructors at www.cambridge.org/9780521876223. The vast number of problems alone makes it an ideal supplementary text for all levels of undergraduate physics courses in classical mechanics. Remarks are scattered throughout the text, discussing issues that are often glossed over in other textbooks, and it is thoroughly illustrated with more than 600 figures to help demonstrate key concepts.

This book presents the asymptotic theory of separate flows in a systematic account. A revision of the defining book covering the physics and classical mathematics necessary to understand electromagnetic fields in materials and at surfaces and interfaces. The third edition has been revised to address the changes in emphasis and applications that have occurred in the past twenty years.

The #1 clinical reference on pediatric and adolescent gynecology is now in its updated Fifth Edition. Written by experts from The Children's Hospital in Boston and other leading medical centers, this handbook presents contemporary approaches to diagnosis and medical and surgical management of gynecologic problems in infants, children and adolescents. This edition features cutting-edge information on urology and complementary and alternative medicine and expanded coverage of surgical techniques for correcting structural abnormalities of the reproductive tract. More than 400 illustrations—including 8 pages of full-color plates—complement the text. The book also includes outstanding algorithms and tables and abundant case examples.

The first rotor performance predictions were published by Joukowski exactly 100 years ago. Although a century of research has expanded the knowledge of rotor aerodynamics enormously, and modern computer power and measurement techniques now enable detailed analyses that were previously out of reach, the concepts proposed by Froude, Betz, Joukowski and

Glauert for modelling a rotor in performance calculations are still in use today, albeit with modifications and expansions. This book is the result of the author's curiosity as to whether a return to these models with a combination of mathematics, dedicated computations and wind tunnel experiments could yield more physical insight and answer some of the old questions still waiting to be resolved. Although most of the work included here has been published previously, the book connects the various topics, linking them in a coherent storyline. "The Fluid Dynamic Basis for Actuator Disc and Rotor Theories" was first published in 2018. This Revised Second Edition (2022) will be of interest to those working in all branches of rotor aerodynamics - wind turbines, propellers, ship screws and helicopter rotors. It has been written for proficient students and researchers, and reading it will demand a good knowledge of inviscid (fluid) mechanics. Jens Nørkær Sørensen, DTU, Technical University of Denmark: "(...) a great piece of work, which in a consistent way highlights many of the items that the author has worked on through the years. All in all, an impressive contribution to the classical work on propellers/wind turbines." Peter Schaffarczyk, Kiel University of Applied Sciences, Germany: "(...) a really impressive piece of work!" Carlos Simão Ferreira, Technical University Delft: "This is a timely book for a new generation of rotor aerodynamicists from wind turbines to drones and personal air-vehicles. In a time where fast numerical solutions for aerodynamic design are increasingly available, a clear theoretical and fundamental formulation of the rotor-wake problem will help professionals to evaluate the validity of their design problem. 'The Fluid Dynamic Basis for Actuator Disc and Rotor Theories' is a pleasure to read, while the structure, text and figures are just as elegant as the theory presented." The cover shows 'The Red Mill', by Piet Mondriaan, 1911, collection Gemeentemuseum Den Haag. Cover image: © 2022 Mondrian/Holtzman Trust.

Spacetime physics -- Physics in flat spacetime -- The mathematics of curved spacetime -- Einstein's geometric theory of gravity -- Relativistic stars -- The universe -- Gravitational collapse and black holes -- Gravitational waves -- Experimental tests of general relativity -- Frontiers

A self-contained introduction to general relativity that is based on the homogeneity and isotropy of the local universe. Emphasis is placed on estimations of the densities of matter and vacuum energy, and on investigations of the primordial density fluctuations and the nature of dark matter. Classical Dynamics of Particles and Sys-

tems presents a modern and reasonably complete account of the classical mechanics of particles, systems of particles, and rigid bodies for physics students at the advanced undergraduate level. The book aims to present a modern treatment of classical mechanical systems in such a way that the transition to the quantum theory of physics can be made with the least possible difficulty; to acquaint the student with new mathematical techniques and provide sufficient practice in solving problems; and to impart to the student some degree of sophistication in handling both the formalism of the theory and the operational technique of problem solving. Vector methods are developed in the first two chapters and are used throughout the book. Other chapters cover the fundamentals of Newtonian mechanics, the special theory of relativity, gravitational attraction and potentials, oscillatory motion, Lagrangian and Hamiltonian dynamics, central-force motion, two-particle collisions, and the wave equation.

This monumental collection of 34 historical papers on quantum electrodynamics features contributions by the 20th century's leading physicists: Dyson, Fermi, Feynman, Foley, Oppenheimer, Pauli, Weiskopf, and others. Twenty-nine are in English, three in German, and one each in French and Italian. Editor Julian Schwinger won a Nobel Prize for his pioneering work in quantum electrodynamics.

This is a collection of notes on classical mechanics, and contains a few things • A collection of miscellaneous notes and problems for my personal (independent) classical mechanics studies. A fair amount of those notes were originally in my collection of Geometric (Clifford) Algebra related material so may assume some knowledge of that subject. • My notes for some of the PHY354 lectures I attended. That class was taught by Prof. Erich Poppitz. I audited some of the Wednesday lectures since the timing was convenient. I took occasional notes, did the first problem set, and a subset of problem set 2. These notes, when I took them, likely track along with the Professor's hand written notes very closely, since his lectures follow his notes very closely. • Some assigned problems from the PHY354 course, ungraded (not submitted since I did not actually take the course). I ended up only doing the first problem set and two problems from the second problem set. • Miscellaneous worked problems from other sources.

This is the fifth edition of a well-established textbook. It is intended to provide a thorough coverage of the fundamental principles and techniques of classical me-

chanics, an old subject that is at the base of all of physics, but in which there has also in recent years been rapid development. The book is aimed at undergraduate students of physics and applied mathematics. It emphasizes the basic principles, and aims to progress rapidly to the point of being able to handle physically and mathematically interesting problems, without getting bogged down in excessive formalism. Lagrangian methods are introduced at a relatively early stage, to get students to appreciate their use in simple contexts. Later chapters use Lagrangian and Hamiltonian methods extensively, but in a way that aims to be accessible to undergraduates, while including modern developments at the appropriate level of detail. The subject has been developed considerably recently while retaining a truly central role for all students of physics and applied mathematics. This edition retains all the main features of the fourth edition, including the two chapters on geometry of dynamical systems and on order and chaos, and the new appendices on conics and on dynamical systems near a critical point. The material has been somewhat expanded, in particular to contrast continuous and discrete behaviours. A further appendix has been added on routes to chaos (period-doubling) and related discrete maps. The new edition has also been revised to give more emphasis to specific examples worked out in detail. Classical Mechanics is written for undergraduate students of physics or applied mathematics. It assumes some basic prior knowledge of the fundamental concepts and reasonable familiarity with elementary differential and integral calculus. Contents: Linear Motion Energy and Angular Momentum Central Conservative Forces Rotating Frames Potential Theory The Two-Body Problem Many-Body Systems Rigid Bodies Lagrangian Mechanics Small Oscillations and Normal Modes Hamiltonian Mechanics Dynamical Systems and Their Geometry Order and Chaos in Hamiltonian Systems Appendices: Vectors Conics Phase Plane Analysis Near Critical Points Discrete Dynamical Systems — Maps Readership: Undergraduates in physics and applied mathematics.

Biology is in the midst of a era yielding many significant discoveries and promising many more. Unique to this era is the exponential growth in the size of information-packed databases. Inspired by a pressing need to analyze that data, Introduction to Computational Biology explores a new area of expertise that emerged from this fertile field- the combination of biological and information sciences. This introduction describes the mathematical structure of biological data, especially from sequences

and chromosomes. After a brief survey of molecular biology, it studies restriction maps of DNA, rough landmark maps of the underlying sequences, and clones and clone maps. It examines problems associated with reading DNA sequences and comparing sequences to finding common patterns. The author then considers that statistics of pattern counts in sequences, RNA secondary structure, and the inference of evolutionary history of related sequences. Introduction to Computational Biology exposes the reader to the fascinating structure of biological data and explains how to treat related combinatorial and statistical problems. Written to describe mathematical formulation and development, this book helps set the stage for even more, truly interdisciplinary work in biology.

This is a reproduction of a book published before 1923. This book may have occasional imperfections such as missing or blurred pages, poor pictures, errant marks, etc. that were either part of the original artifact, or were introduced by the scanning process. We believe this work is culturally important, and despite the imperfections, have elected to bring it back into print as part of our continuing commitment to the preservation of printed works worldwide. We appreciate your understanding of the imperfections in the preservation process, and hope you enjoy this valuable book.

Goldstein believes that overcoming depression and uncovering happiness is in harnessing our brain's own natural antidepressant power and ultimately creating a more resilient antidepressant brain. In seven simple steps, she shows you how to take back control of your mind, your mood, and your life --

The first book to offer a proven, fast, inexpensive, and practical way to cut greenhouse gas emissions and prevent catastrophic climate change. As climate change quickly approaches a series of turning points that guarantee disastrous outcomes, a solution is hiding in plain sight. Several countries have already replaced fossil fuels with low-carbon energy sources, and done so rapidly, in one to two decades. By following their methods, we could decarbonize the global economy by midcentury, replacing fossil fuels even while world energy use continues to rise. But so far we have lacked the courage to really try. In this clear-sighted and compelling book, Joshua Goldstein and Staffan Qvist explain how clean energy quickly replaced fossil fuels in such places as Sweden, France, South Korea, and Ontario. Their people enjoyed prosperity and growing energy use in harmony with the natu-

ral environment. They didn't do this through personal sacrifice, nor through 100 percent renewables, but by using them in combination with an energy source the Swedes call *k kraft*, hundreds of times safer and cleaner than coal. Clearly written and beautifully illustrated, yet footnoted with extensive technical references, Goldstein and Qvist's book will provide a new touchstone in discussions of climate change. It could spark a shift in world energy policy that, in the words of Steven Pinker's foreword, literally saves the world.

In her groundbreaking history of 175 years of American education, Dana Goldstein finds answers in the past to the controversies that plague our public schools today. Teaching is a wildly contentious profession in America, one attacked and admired in equal measure. In *The Teacher Wars*, a rich, lively, and unprecedented history of public school teaching, Dana Goldstein reveals that teachers have been similarly embattled for nearly two centuries. From the genteel founding of the common schools movement in the nineteenth century to the violent inner-city teacher strikes of the 1960s and '70s, from the dispatching of Northeastern women to frontier schoolhouses to the founding of Teach for America on the Princeton University campus in 1989, Goldstein shows that the same issues have continued to bedevil us: Who should teach? What should be taught? Who should be held accountable for how our children learn? She uncovers the surprising roots of hot button issues, from teacher tenure to charter schools, and finds that recent popular ideas to improve schools—instituting merit pay, evaluating teachers by student test scores, ranking and firing veteran teachers, and recruiting “elite” graduates to teach—are all approaches that have been tried in the past without producing widespread change. And she also discovers an emerging effort that stands a real chance of transforming our schools for the better: drawing on the best practices of the three million public school teachers we already have in order to improve learning throughout our nation's classrooms. *The Teacher Wars* upends the conversation about American education by bringing the lessons of history to bear on the dilemmas we confront today. By asking “How did we get here?” Dana Goldstein brilliantly illuminates the path forward.

Gregory's *Classical Mechanics* is a major new textbook for undergraduates in mathematics and physics. It is a thorough, self-contained and highly readable account of a subject many students find difficult. The

author's clear and systematic style promotes a good understanding of the subject: each concept is motivated and illustrated by worked examples, while problem sets provide plenty of practice for understanding and technique. Computer assisted problems, some suitable for projects, are also included. The book is structured to make learning the subject easy; there is a natural progression from core topics to more advanced ones and hard topics are treated with particular care. A theme of the book is the importance of conservation principles. These appear first in vectorial mechanics where they are proved and applied to problem solving. They reappear in analytical mechanics, where they are shown to be related to symmetries of the Lagrangian, culminating in Noether's theorem.

Advances in the study of dynamical systems have revolutionized the way that classical mechanics is taught and understood. *Classical Dynamics*, first published in 1998, is a comprehensive textbook that provides a complete description of this fundamental branch of physics. The authors cover all the material that one would expect to find in a standard graduate course: Lagrangian and Hamiltonian dynamics, canonical transformations, the Hamilton-Jacobi equation, perturbation methods, and rigid bodies. They also deal with more advanced topics such as the relativistic Kepler problem, Liouville and Darboux theorems, and inverse and chaotic scattering. A key feature of the book is the early introduction of geometric (differential manifold) ideas, as well as detailed treatment of topics in nonlinear dynamics (such as the KAM theorem) and continuum dynamics (including solitons). The book contains many worked examples and over 200 homework exercises. It will be an ideal textbook for graduate students of physics, applied mathematics, theoretical chemistry, and engineering, as well as a useful reference for researchers in these fields. A solutions manual is available exclusively for instructors.

Normal 0 false false false This book emphasizes the physical interpretation of mathematical solutions and introduces applied mathematics while presenting differential equations. Coverage includes Fourier series, orthogonal functions, boundary value problems, Green's functions, and transform methods. This text is ideal for readers interested in science, engineering, and applied mathematics.

simulated motion on a computer screen, and to study the effects of changing parameters. --

The Human Thymus presents the immuno-

logical aspect of the thymus. It discusses the lymphopoietic and immunological functions of the human thymus. It addresses the physiological function of thymus that regulates neuromuscular transmission by the secretion of thymine. Some of the topics covered in the book are the origin of thymic lymphocytes; development of Hassall's corpuscles; humoral immune responses; neonatal thymectomy and wasting disease; mode of action of thymine at the neuromyal synapse; experimental autoimmune thymitis; and neuromuscular block associated with experimental autoimmune thymitis. The diseases induced with Freund's complete adjuvant are covered. The spontaneously occurring autoimmune diseases are discussed. The text describes the size of the human thymus. A study of the experimental effect of hormones on thymic size is presented. A chapter is devoted to the thymic hypoplasia and immunological deficiencies. Another section focuses on the histopathology of thymus in myasthenia gravis. The book can provide useful information to scientists, doctors, students, and researchers.

A modern introduction to quantum field theory for graduates, providing intuitive, physical explanations supported by real-world applications and homework problems.

A comprehensive compilation of new developments in data linkage methodology The increasing availability of large administrative databases has led to a dramatic rise in the use of data linkage, yet the standard texts on linkage are still those which describe the seminal work from the 1950-60s, with some updates. Linkage and analysis of data across sources remains problematic due to lack of discriminatory and accurate identifiers, missing data and regulatory issues. Recent developments in data linkage methodology have concentrated on bias and analysis of linked data, novel approaches to organising relationships between databases and privacy-preserving linkage. *Methodological Developments in Data Linkage* brings together a collection of contributions from members of the international data linkage community, covering cutting edge methodology in this field. It presents opportunities and challenges provided by linkage of large and often complex datasets, including analysis problems, legal and security aspects, models for data access and the development of novel research areas. New methods for handling uncertainty in analysis of linked data, solutions for anonymised linkage and alternative models for data collection are also discussed. Key Features: Presents cutting edge methods for a topic of increasing importance to a wide range of re-

search areas, with applications to data linkage systems internationally Covers the essential issues associated with data linkage today Includes examples based on real data linkage systems, highlighting the opportunities, successes and challenges that the increasing availability of linkage data provides Novel approach incorporates technical aspects of both linkage, management and analysis of linked data This book will be of core interest to academics, government employees, data holders, data managers, analysts and statisticians who use administrative data. It will also appeal to researchers in a variety of areas, including epidemiology, biostatistics, social statistics, informatics, policy and public health. For thirty years this has been the acknowledged standard in advanced classical mechanics courses. This classic book enables readers to make connections between classical and modern physics - an indispensable part of a physicist's education. In this new edition, Beams Medal winner Charles Poole and John Safko have updated the book to include the latest topics, applications, and notation, to reflect today's physics curriculum. They introduce readers to the increasingly important role that nonlinearities play in contemporary applications of classical mechanics. New numerical exercises help readers to develop skills in how to use computer techniques to solve problems in physics. Mathematical techniques are presented in detail so that the book remains fully accessible to readers who have not had an intermediate course in classical mechanics. For college instructors and students.

In this unconventional and stimulating primer, world-class physicist Leonard Susskind and citizen-scientist George Hrabovsky combine forces to provide a brilliant first course in modern physics. Unlike most popular physics books - which give readers a taste of what physicists know but not what they actually do - Susskind and Hrabovsky teach the skills you need to do physics yourself. Combining crystal-clear explanations of the laws of the universe with basic exercises, the authors cover the minimum - the theoretical minimum of the title - that readers need to master in order to study more advanced topics. In a lucid, engaging style, they introduce all the key concepts, from classical mechanics to general relativity to quantum theory. Instead of shying away from the equations and maths that are essential to any understanding of physics, *The Theoretical Minimum* provides a toolkit that you won't find in any other popular science book.

This two-part text fills what has often been a void in the first-year graduate physics

curriculum. Through its examination of particles and continua, it supplies a lucid and self-contained account of classical mechanics — which in turn provides a natural framework for introducing many of the advanced mathematical concepts in physics. The text opens with Newton's laws of motion and systematically develops the dynamics of classical particles, with chapters on basic principles, rotating coordinate systems, lagrangian formalism, small oscillations, dynamics of rigid bodies, and hamiltonian formalism, including a brief discussion of the transition to quantum mechanics. This part of the book also considers examples of the limiting behavior of many particles, facilitating the eventual transition to a continuous medium. The second part deals with classical continua, including chapters on string membranes, sound waves, surface waves on nonviscous fluids, heat conduction, viscous fluids, and elastic media. Each of these self-contained chapters provides the relevant physical background and develops the appropriate mathematical techniques, and problems of varying difficulty appear throughout the text.

Drawing on the author's experience in Brazil, this text provides a portrait of everyday life among the women of the favelas - a portrait that challenges much of what we think we know about the 'culture of poverty'. It helps us understand the nature of joking and laughter in the shantytown.

No scientist has done more to shape our understanding of the universe than Murray Gell-Mann, the Nobel Prize-winner considered by many colleagues to be the most brilliant physicist of his generation. His discovery of the quark and the Eightfold Way were cornerstones for all that followed in particle physics, the effort to understand the very stuff of creation. In this, the first biography of Gell-Mann, George Johnson tells the story of a remarkable life.

Ronald E. Goldstein's *Esthetics in Dentistry*, Third Edition provides a thoroughly updated and expanded revision to the definitive reference to all aspects of esthetic and cosmetic dentistry, from principles and treatments to specific challenges and complications. Provides a current, comprehensive examination of all aspects of esthetic and cosmetic dentistry Presents 23 new chapters from international experts in the field and complete updates to existing chapters Offers more than 3,700 high-quality photographs and illustrations Adds clinical case studies and treatment algorithms for increased clinical relevance Emphasizes clinical relevance, with all information thoroughly rooted in the scientific evidence

Partial Differential Equations presents a balanced and comprehensive introduction to the concepts and techniques required to solve problems containing unknown functions of multiple variables. While focusing on the three most classical partial differential equations (PDEs)—the wave, heat, and Laplace equations—this detailed text also presents a broad practical perspective that merges mathematical concepts with real-world application in diverse areas including molecular structure, photon and electron interactions, radiation of electromagnetic waves, vibrations of a solid, and many more. Rigorous pedagogical tools aid in student comprehension; advanced topics are introduced frequently, with minimal technical jargon, and a wealth of exercises reinforce vital skills and invite additional self-study. Topics are presented in a logical progression, with major concepts such as wave propagation, heat and diffusion, electrostatics, and quantum mechanics placed in contexts familiar to students of various fields in science and engineering. By understanding the properties and applications of PDEs, students will be equipped to better analyze and interpret central processes of the natural world.

Teaching and Learning in a Multilingual School: Choices, Risks, and Dilemmas is for teachers and teacher educators working in communities that educate children who do not speak English as a first language. At the center of the book are findings from a four-year critical ethnographic case study of a Canadian high school with a large number of emigrant students from Hong Kong and rich descriptions of the multitude of ways teachers and students thought about, responded to, and negotiated the issues and dilemmas that arose. The solutions and insights they derived from their experiences of working across linguistic, cultural, and racial differences will be extremely valuable to educators in other locales that have become home to large numbers of immigrant families. The book is designed to help readers think about how the issues and dilemmas in the case study manifest themselves in their own communities and how to apply the insights they gain to their own teaching and learning contexts: * Each chapter includes four components: an excerpt from the ethnographic study; an analytic commentary on the ethnographic text drawn from a variety of theoretical perspectives and academic disciplines (including interactionist sociolinguistics, language minority education, English as a Second Language education, critical literacy, anti-racist education, and critical teacher education); a pedagogical discussion; and suggestions for

further reflection and discussion. * The book features the use of ethnographic play writing to engage readers with the issues that arise in multicultural/multilingual schools. The author's play Hong Kong, Canada is included in its entirety and is used to stimulate further discussion of the is-

sues raised in each of the chapters. * Although it is organized around two different kinds of schooling dilemmas--dilemmas of speech and silence, and dilemmas of discrimination--everyday dilemmas of curriculum and assessment are also discussed throughout the book. * A methodological discussion of the choices the author made

while designing, conducting, and writing up the critical ethnographic case study makes the book useful in qualitative research methodology courses. * A set of strategies and activities is provided for helping students develop English oral presentation skills.