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QED

THE STRANGE THEORY OF LIGHT AND MATTER

Princeton University Press *Celebrated for his brilliantly quirky insights into the physical world, Nobel laureate Richard Feynman also possessed an extraordinary talent for explaining difficult concepts to the general public. Here Feynman provides a classic and definitive introduction to QED (namely, quantum electrodynamics), that part of quantum field theory describing the interactions of light with charged particles. Using everyday language, spatial concepts, visualizations, and his renowned "Feynman diagrams" instead of advanced mathematics, Feynman clearly and humorously communicates both the substance and spirit of QED to the layperson. A. Zee's introduction places Feynman's book and his seminal contribution to QED in historical context and further highlights Feynman's uniquely appealing and illuminating style.*

ELASTIC

FLEXIBLE THINKING IN A CONSTANTLY CHANGING WORLD

Penguin UK *The bestselling author of The Drunkard's Walk and Subliminal unlocks the secrets of flexible thinking. What do Pokémon Go and Mary Shelley's Frankenstein have in common? Why do some businesses survive, and others fail at the first sign of change? What gives the human brain the edge over computers? The answer: Elastic Thinking. It's an ability we all possess, and one that we can all learn to hone in order to succeed, at work and in our everyday lives. Here Leonard Mlodinow, whose own flexible thinking has taken him from physics professor to TV scriptwriter and bestselling author, takes us on a revelatory exploration of how elasticity works. He draws on cutting-edge neuroscience to show how, millennia ago, our brains developed an affinity for novelty, idea generation and exploration. He discovers how flexible thinking enabled some of the greatest artists, writers, musicians and innovators to create paradigm shifts. He investigates the organisations that have demonstrated an elastic ability to adapt to new technologies. And he reveals how you can test your own brain power and increase your capacity for elastic thinking. By uncovering the secrets of our flexible minds, Elastic explains how to thrive in an endlessly dynamic world, at a time when an ability to adapt is more important than ever before.*

THE QUOTABLE FEYNMAN

Princeton University Press *A treasure-trove of illuminating and entertaining quotations from beloved physicist Richard P. Feynman "Some people say, 'How can you live without knowing?' I do not know what they mean. I always live without knowing. That is easy. How you get to know is what I want to know."—Richard P. Feynman Nobel Prize-winning physicist Richard P. Feynman (1918–88) was that rarest of creatures—a towering scientific genius who could make himself understood by anyone and who became as famous for the wit and wisdom of his popular lectures and writings as for his fundamental contributions to science. The Quotable Feynman is a treasure-trove of this revered and beloved scientist's most profound, provocative, humorous, and memorable quotations on a wide range of subjects. Carefully selected by Richard Feynman's daughter, Michelle Feynman, from his spoken and written legacy, including interviews, lectures, letters, articles, and books, the quotations are arranged under two dozen topics—from art, childhood, discovery, family, imagination, and humor to mathematics, politics, science, religion, and uncertainty. These brief passages—about 500 in all—vividly demonstrate Feynman's astonishing yet playful intelligence, and his almost constitutional inability to be anything other than unconventional, engaging, and inspiring. The result is a unique, illuminating, and enjoyable portrait of Feynman's life and thought that will be cherished by his fans at the same time that it provides an ideal introduction to Feynman for readers new to this intriguing and important thinker. The book features a foreword in which physicist Brian Cox pays tribute to Feynman and describes how his words reveal his particular genius, a piece in which cellist Yo-Yo Ma shares his memories of Feynman and reflects on his enduring appeal, and a personal preface by Michelle Feynman. It also includes some previously unpublished quotations, a chronology of Richard Feynman's life, some twenty photos of Feynman, and a section of memorable quotations about Feynman from other notable figures. Features: Approximately 500 quotations, some of them previously unpublished, arranged by topic A foreword by Brian Cox, reflections by Yo-Yo Ma, and a preface by Michelle Feynman A chronology of Feynman's life Some twenty photos of Feynman A section of quotations about Feynman from other notable figures Some notable quotations of Richard P. Feynman: "The thing that doesn't fit is the most interesting." "Thinking is nothing but talking to yourself inside." "It is wonderful if you can find something you love to do in your youth which is big enough to sustain your interest through all your adult life. Because, whatever it is, if you do it well enough (and you will, if you truly love it), people will pay you to do what you want to do anyway." "I'd hate to die twice. It's so boring."*

FOR THE LOVE OF PHYSICS

FROM THE END OF THE RAINBOW TO THE EDGE OF TIME - A JOURNEY THROUGH THE WONDERS OF PHYSICS

Simon and Schuster *Largely autobiographical account of the author's life as one who fell in love first with physics and then with teaching physics to students.*

EUCLID'S WINDOW

THE STORY OF GEOMETRY FROM PARALLEL LINES TO HYPERSPACE

Simon and Schuster *Through Euclid's Window Leonard Mlodinow brilliantly and delightfully leads us on a journey through five revolutions in geometry, from the Greek concept of parallel lines to the latest notions of hyperspace. Here is an altogether new, refreshing, alternative history of math revealing how simple questions anyone might ask about space -- in the living room or in some other galaxy -- have been the hidden engine of the highest achievements in science and technology. Based on Mlodinow's extensive historical research; his studies alongside colleagues such as Richard Feynman and Kip Thorne; and interviews with leading physicists and mathematicians such as Murray Gell-Mann, Edward Witten, and Brian Greene, Euclid's Window is an extraordinary blend of rigorous, authoritative investigation and accessible, good-humored storytelling that makes a stunningly original argument asserting the primacy of geometry. For those who have looked through Euclid's Window, no space, no thing, and no time will ever be quite the same.*

THE RAINBOW AND THE WORM

THE PHYSICS OF ORGANISMS THIRD EDITION

World Scientific Publishing Company *This highly unusual book began as a serious inquiry into Schrödinger's question, "What is life?", and as a celebration of life itself. It takes the reader on a voyage of discovery through many areas of contemporary physics, from non-equilibrium thermodynamics and quantum optics to liquid crystals and fractals, all necessary for illuminating the problem of life. In the process, the reader is treated to a rare and exquisite view of the organism, gaining novel insights not only into the physics, but also into "the poetry and meaning of being alive." This much-enlarged third edition includes new findings on the central role of biological water in organizing living processes; it also completes the author's novel theory of the organism and its applications in ecology, physiology and brain science.*

IKIGAI

THE JAPANESE SECRET TO A LONG AND HAPPY LIFE

Random House *THE INTERNATIONAL BESTSELLER* We all have an ikigai. It's the Japanese word for 'a reason to live' or 'a reason to jump out of bed in the morning'. It's the place where your needs, desires, ambitions, and satisfaction meet. A place of balance. Small wonder that finding your ikigai is closely linked to living longer. Finding your ikigai is easier than you might think. This book will help you work out what your own ikigai really is, and equip you to change your life. You have a purpose in this world: your skills, your interests, your desires and your history have made you the perfect candidate for something. All you have to do is find it. Do that, and you can make every single day of your life joyful and meaningful. _____ 'I read it and it's bewitched me ever since. I'm spellbound.' Chris Evans 'A refreshingly simple recipe for happiness.' Stylist 'Ikigai gently unlocks simple secrets we can all use to live long, meaningful, happy lives. Warm, patient, and kind, this book pulls you gently along your own journey rather than pushing you from behind.' Neil Pasricha, bestselling author of *The Happiness Equation*

PHOTONIC CRYSTALS

MOLDING THE FLOW OF LIGHT - SECOND EDITION

Princeton University Press Since it was first published in 1995, *Photonic Crystals* has remained the definitive text for both undergraduates and researchers on photonic band-gap materials and their use in controlling the propagation of light. This newly expanded and revised edition covers the latest developments in the field, providing the most up-to-date, concise, and comprehensive book available on these novel materials and their applications. Starting from Maxwell's equations and Fourier analysis, the authors develop the theoretical tools of photonics using principles of linear algebra and symmetry, emphasizing analogies with traditional solid-state physics and quantum theory. They then investigate the unique phenomena that take place within photonic crystals at defect sites and surfaces, from one to three dimensions. This new edition includes entirely new chapters describing important hybrid structures that use band gaps or periodicity only in some directions: periodic waveguides, photonic-crystal slabs, and photonic-crystal fibers. The authors demonstrate how the capabilities of photonic crystals to localize light can be put to work in devices such as filters and splitters. A new appendix provides an overview of computational methods for electromagnetism. Existing chapters have been considerably updated and expanded to include many new three-dimensional photonic crystals, an extensive tutorial on device design using temporal coupled-mode theory, discussions of diffraction and refraction at crystal interfaces, and more. Richly illustrated and accessibly written, *Photonic Crystals* is an indispensable resource for students and researchers. Extensively revised and expanded Features improved graphics throughout Includes new chapters on photonic-crystal fibers and combined index-and band-gap-guiding Provides an introduction to coupled-mode theory as a powerful tool for device design Covers many new topics, including omnidirectional reflection, anomalous refraction and diffraction, computational photonics, and much more.

THE DANCING WU LI MASTERS

AN OVERVIEW OF THE NEW PHYSICS

Random House This is an account of the essential aspects of the new physics for those with little or no knowledge of mathematics or science. It describes current theories of quantum mechanics, Einstein's special and general theories of relativity and other speculations, alluding throughout to parallels with modern psychology and metaphorical abstractions to Buddhism and Taoism. The author has also written "The Seat of the Soul".

THE FEYNMAN IMPERATIVE

WHY SCIENCE WORKS

Mount San Antonio College/Philosophy Group This book consists of six distinct essays describing how science works, with special attention to how Richard Feynman viewed the scientific method. Chapter one explores the difference between evolution and mysticism's version of intelligent design. Chapter two is entitled *The Feynman Imperative* and explores a contentious debate over reductionism and its role in the hard sciences, particularly in explaining consciousness. Chapter three details how practical the scientific endeavor is and why science tends to avoid making dogmatic and absolute statements. Other chapters include: *The Gravity of Science*, *Feynman's Flower (and the beauty of physics and biology)*, and concludes with *Shiva Science* which illustrates that science is composed of many avenues and not just one. Dr. Lane has taught science and religion courses at California State University, Long Beach for over a decade and is currently a Professor of Philosophy at Mt. San Antonio College where he lectures on quantum theory, neuroscience, and evolutionary biology. He has also produced a number of original mini films dealing with Richard Feynman's philosophy of science.

THE DATA SCIENCE DESIGN MANUAL

Springer This engaging and clearly written textbook/reference provides a must-have introduction to the rapidly emerging interdisciplinary field of data science. It focuses on the principles fundamental to becoming a good data scientist and the key skills needed to build systems for collecting, analyzing, and interpreting data. The *Data Science Design Manual* is a source of practical insights that highlights what really matters in analyzing data, and provides an intuitive understanding of how these core concepts can be used. The book does not emphasize any particular programming language or suite of data-analysis tools, focusing instead on high-level discussion of important design principles. This easy-to-read text ideally serves the needs of undergraduate and early graduate students embarking on an "Introduction to Data Science" course. It reveals how this discipline sits at the intersection of statistics, computer science, and machine learning, with a distinct heft and character of its own. Practitioners in these and related fields will find this book perfect for self-study as well. Additional learning tools: Contains "War Stories," offering perspectives on how data science applies in the real world Includes "Homework Problems," providing a wide range of exercises and projects for self-study Provides a complete set of lecture slides and online video lectures at www.data-manual.com Provides "Take-Home Lessons," emphasizing the big-picture concepts to learn from each chapter Recommends exciting "Kaggle Challenges" from the online platform Kaggle Highlights "False Starts," revealing the subtle reasons why certain approaches fail Offers examples taken from the data science television show "The Quant Shop" (www.quant-shop.com)

FREE WILL AND CONSCIOUSNESS IN THE MULTIVERSE

PHYSICS, PHILOSOPHY, AND QUANTUM DECISION MAKING

Springer It is hard to interpret quantum mechanics. The most surprising, but also most parsimonious, interpretation is the many-worlds, or quantum-multiverse interpretation, implying a permanent coexistence of parallel realities. Could this perhaps be the appropriate interpretation of quantum mechanics? This book collects evidence for this interpretation, both from physics and from other fields, and proposes a subjectivist version of it, the clustered-minds multiverse. The author explores its implications through the lens of decision making and derives consequences for free will and consciousness. For example, free will can be implemented in the form of vectorial choices, as introduced in the book. He furthermore derives consequences for research in the social sciences, especially in psychology and economics.

TUVA OR BUST!

RICHARD FEYNMAN'S LAST JOURNEY

W. W. Norton & Company A close friend of physicist Richard Feynman chronicles his relationship with the scientist and describes their ten-year quest to reach the remote country of Tannu Tuva.

THE QUANTUM UNIVERSE

EVERYTHING THAT CAN HAPPEN DOES HAPPEN

Penguin UK *The Quantum Universe* brings together two authors on a brilliantly ambitious mission to show that everyone can understand the deepest questions of science. But just what is quantum physics? How does it help us understand the world? Where does it leave Newton and Einstein? And why, above all, can we be sure that the theory is good? The bizarre behaviour of the atoms and energy that make up the universe has led to some very woolly pronouncements on the nature of all interconnectedness. Here, Brian Cox and Jeff Forshaw give us the real science, and reveal the profound theories

that allow for concrete, yet astonishing, predictions about the world. This is our most up-to-date picture of reality.

GAUGE/GRAVITY DUALITY

Cambridge University Press *The first textbook on this important topic, for graduate students and researchers in particle and condensed matter physics.*

THE NUTS AND BOLTS OF COLLEGE WRITING (2ND EDITION)

Hackett Publishing *This worthy successor to Strunk and White* now features an expanded style guide covering a wider range of citation cases, complete with up-to-date formats for Chicago, MLA, and APA styles.*

MATHEMATICS UNDER THE MICROSCOPE

NOTES ON COGNITIVE ASPECTS OF MATHEMATICAL PRACTICE

American Mathematical Soc. *The author's goal is to start a dialogue between mathematicians and cognitive scientists. He discusses, from a working mathematician's point of view, the mystery of mathematical intuition: why are certain mathematical concepts more intuitive than others? To what extent does the "small scale" structure of mathematical concepts and algorithms reflect the workings of the human brain? What are the "elementary particles" of mathematics that build up the mathematical universe? The book is saturated with amusing examples from a wide range of disciplines--from turbulence to error-correcting codes to logic--as well as with just puzzles and brainteasers. Despite the very serious subject matter, the author's approach is lighthearted and entertaining. This is an unusual and unusually fascinating book. Readers who never thought about mathematics after their school years will be amazed to discover how many habits of mind, ideas, and even material objects that are inherently mathematical serve as building blocks of our civilization and everyday life. A professional mathematician, reluctantly breaking the daily routine, or pondering on some resisting problem, will open this book and enjoy a sudden return to his or her young days when mathematics was fresh, exciting, and holding all promises. And do not take the word "microscope" in the title too literally: in fact, the author looks around, in time and space, focusing in turn on a tremendous variety of motives, from mathematical "memes" (genes of culture) to an unusual life of a Hollywood star. --Yuri I. Manin, Max-Planck Institute of Mathematics, Bonn, and Northwestern University*

LECTURES ON COMPUTATION

Perseus Books *Covering the theory of computation, information and communications, the physical aspects of computation, and the physical limits of computers, this text is based on the notes taken by one of its editors, Tony Hey, on a lecture course on computation given b*

AN INTRODUCTION TO RAY TRACING

Elsevier *The creation of ever more realistic 3-D images is central to the development of computer graphics. The ray tracing technique has become one of the most popular and powerful means by which photo-realistic images can now be created. The simplicity, elegance and ease of implementation makes ray tracing an essential part of understanding and exploiting state-of-the-art computer graphics. An Introduction to Ray Tracing develops from fundamental principles to advanced applications, providing "how-to" procedures as well as a detailed understanding of the scientific foundations of ray tracing. It is also richly illustrated with four-color and black-and-white plates. This is a book which will be welcomed by all concerned with modern computer graphics, image processing, and computer-aided design. Provides practical "how-to" information Contains high quality color plates of images created using ray tracing techniques Progresses from a basic understanding to the advanced science and application of ray tracing*

JAVA WEB SERVICES: UP AND RUNNING

UP AND RUNNING

"O'Reilly Media, Inc." *This example-driven book offers a thorough introduction to Java's APIs for XML Web Services (JAX-WS) and RESTful Web Services (JAX-RS). Java Web Services: Up and Running takes a clear, pragmatic approach to these technologies by providing a mix of architectural overview, complete working code examples, and short yet precise instructions for compiling, deploying, and executing an application. You'll learn how to write web services from scratch and integrate existing services into your Java applications. With Java Web Services: Up and Running, you will: Understand the distinction between SOAP-based and REST-style services Write, deploy, and consume SOAP-based services in core Java Understand the Web Service Definition Language (WSDL) service contract Recognize the structure of a SOAP message Learn how to deliver Java-based RESTful web services and consume commercial RESTful services Know security requirements for SOAP- and REST-based web services Learn how to implement JAX-WS in various application servers Ideal for students as well as experienced programmers, Java Web Services: Up and Running is the concise guide you need to start working with these technologies right away.*

IMPOSSIBILITY

THE LIMITS OF SCIENCE AND THE SCIENCE OF LIMITS

Oxford University Press on Demand *Astronomer John Barrow takes an intriguing look at the limits of science, who argues that there are things that are ultimately unknowable, undoable, or unreachable.*

WANDERING SIGNIFICANCE

AN ESSAY ON CONCEPTUAL BEHAVIOR

Oxford University Press *Mark Wilson presents a highly original and broad-ranging investigation of the way we get to grips with the world conceptually, and the way that philosophical problems commonly arise from this. Words such as color, shape, solidity exemplify the commonplace conceptual tools we employ to describe and order the world around us. But the world's goods are complex in their behaviors and we often overlook the subtle adjustments that our evaluative terms undergo as their usage becomes gradually adapted to different forms of supportive circumstance. Wilson not only explains how these surprising strategies of hidden management operate, but also tells the astonishing story of how faulty schemes and great metaphysical systems sometimes spring from a simple failure to recognize the innocent wanderings to which our descriptive words are heir. Wilson combines traditional philosophical concerns about human conceptual thinking with illuminating data derived from a large variety of fields including physics and applied mathematics, cognitive psychology, and linguistics. Wandering Significance offers abundant new insights and perspectives for philosophers of language, mind, and science, and will also reward the interest of psychologists, linguists, and anyone curious about the mysterious ways in which useful language obtains its practical applicability.*

THE DRUNKARD'S WALK

HOW RANDOMNESS RULES OUR LIVES

Penguin UK *An exhilarating, eye-opening guide to understanding our random world Leonard Mlodinow reveals the psychological illusions that prevent us understanding everything from stock-picking to wine-tasting, winning the lottery to road safety, and reveals the truth about the success of sporting heroes and film stars, and even how to make sense of a blood test. The Drunkard's Walk is an exhilarating, eye-opening guide to understanding our random world - read it, so you won't be left a victim of chance. Leonard Mlodinow has a Ph.D., has been a member of the faculty of the California Institute of Technology and a television writer in Hollywood, as well as developing many award winning CD-Roms. He is currently Vice President of Emerging Technologies and R&D at Scholastic Inc. and lives in New York City. His previous books include A Brief History of Time, which he co-authored, and Euclid's Window and Some Time with Feynman both published by Penguin.*

SURELY YOU'RE JOKING MR FEYNMAN

ADVENTURES OF A CURIOUS CHARACTER

Random House WITH A NEW INTRODUCTION BY BILL GATES In this warm, insightful portrait of the Winner of the Nobel Prize for Physics in 1965, we see the wisdom, humour and curiosity of Richard Feynman through a series of conversations with his friend Ralph Leighton. Winner of the Nobel Prize for Physics in 1965, Richard Feynman was one of the world's greatest theoretical physicists, but he was also a man who fell, often jumped, into adventure. An artist, safecracker, practical joker and storyteller, Feynman's life was a series of combustible combinations made possible by his unique mixture of high intelligence, unquenchable curiosity and eternal scepticism. Over a period of years, Feynman's conversations with his friend Ralph Leighton were first taped and then set down as they appear here, little changed from their spoken form, giving a wise, funny, passionate and totally honest self-portrait of one of the greatest men of our age.

THE PHYSICS OF MUSIC AND COLOR

SOUND AND LIGHT

Springer Nature This undergraduate textbook aids readers in studying music and color, which involve nearly the entire gamut of the fundamental laws of classical as well as atomic physics. The objective bases for these two subjects are, respectively, sound and light. Their corresponding underlying physical principles overlap greatly: Both music and color are manifestations of wave phenomena. As a result, commonalities exist as to the production, transmission, and detection of sound and light. Whereas traditional introductory physics textbooks are styled so that the basic principles are introduced first and are then applied, this book is based on a motivational approach: It introduces a subject with a set of related phenomena, challenging readers by calling for a physical basis for what is observed. A novel topic in the first edition and this second edition is a non-mathematical study of electric and magnetic fields and how they provide the basis for the propagation of electromagnetic waves, of light in particular. The book provides details for the calculation of color coordinates and luminosity from the spectral intensity of a beam of light as well as the relationship between these coordinates and the color coordinates of a color monitor. The second edition contains corrections to the first edition, the addition of more than ten new topics, new color figures, as well as more than forty new sample problems and end-of-chapter problems. The most notable additional topics are: the identification of two distinct spectral intensities and how they are related, beats in the sound from a Tibetan bell, AM and FM radio, the spectrogram, the short-time Fourier transform and its relation to the perception of a changing pitch, a detailed analysis of the transmittance of polarized light by a Polaroid sheet, brightness and luminosity, and the mysterious behavior of the photon. The Physics of Music and Color is written at a level suitable for college students without any scientific background, requiring only simple algebra and a passing familiarity with trigonometry. The numerous problems at the end of each chapter help the reader to fully grasp the subject.

QUANTUM MAN: RICHARD FEYNMAN'S LIFE IN SCIENCE (GREAT DISCOVERIES)

W. W. Norton & Company "A worthy addition to the Feynman shelf and a welcome follow-up to the standard-bearer, James Gleick's *Genius*." —Kirkus Reviews Perhaps the greatest physicist of the second half of the twentieth century, Richard Feynman changed the way we think about quantum mechanics, the most perplexing of all physical theories. Here Lawrence M. Krauss, himself a theoretical physicist and a best-selling author, offers a unique scientific biography: a rollicking narrative coupled with clear and novel expositions of science at the limits. From the death of Feynman's childhood sweetheart during the Manhattan Project to his reluctant rise as a scientific icon, we see Feynman's life through his science, providing a new understanding of the legacy of a man who has fascinated millions.

THE STORY OF PHYSICS

Springer Traces the development of physics from 2000 years ago to the experimental theories of the 20th century.

THE ENCYCLOPAEDIA BRITANNICA

A DICTIONARY OF ARTS, SCIENCES, LITERATURE AND GENERAL INFORMATION (VOLUME I) A TO ANDROPHAGI

Alpha Edition This book has been considered by academicians and scholars of great significance and value to literature. This forms a part of the knowledge base for future generations. So that the book is never forgotten we have represented this book in a print format as the same form as it was originally first published. Hence any marks or annotations seen are left intentionally to preserve its true nature.

THE THEORY OF EVERYTHING

THE ORIGIN AND FATE OF THE UNIVERSE

THE UNIVERSAL MACHINE

FROM THE DAWN OF COMPUTING TO DIGITAL CONSCIOUSNESS

Springer Science & Business Media The computer unlike other inventions is universal; you can use a computer for many tasks: writing, composing music, designing buildings, creating movies, inhabiting virtual worlds, communicating... This popular science history isn't just about technology but introduces the pioneers: Babbage, Turing, Apple's Wozniak and Jobs, Bill Gates, Tim Berners-Lee, Mark Zuckerberg. This story is about people and the changes computers have caused. In the future ubiquitous computing, AI, quantum and molecular computing could even make us immortal. The computer has been a radical invention. In less than a single human life computers are transforming economies and societies like no human invention before.

MAGICAL MATHEMATICS

THE MATHEMATICAL IDEAS THAT ANIMATE GREAT MAGIC TRICKS

Princeton University Press "Magical Mathematics reveals the secrets of amazing, fun-to-perform card tricks--and the profound mathematical ideas behind them--that will astound even the most accomplished magician. Persi Diaconis and Ron Graham provide easy, step-by-step instructions for each trick, explaining how to set up the effect and offering tips on what to say and do while performing it. Each card trick introduces a new mathematical idea, and varying the tricks in turn takes readers to the very threshold of today's mathematical knowledge. For example, the Gilbreath principle--a fantastic effect where the cards remain in control despite being shuffled--is found to share an intimate connection with the Mandelbrot set. Other card tricks link to the mathematical secrets of combinatorics, graph theory, number theory, topology, the Riemann hypothesis, and even Fermat's last theorem. Diaconis and Graham are mathematicians as well as skilled performers with decades of professional experience between them. In this book they share a wealth of conjuring lore, including some closely guarded secrets of legendary magicians. Magical Mathematics covers the mathematics of juggling and shows how the I Ching connects to the history of probability and magic tricks both old and new. It tells the stories--and reveals the best tricks--of the eccentric and brilliant inventors of mathematical magic. Magical Mathematics exposes old gambling secrets through the mathematics of shuffling cards, explains the classic street-gambling scam of three-card monte, traces the history of mathematical magic back to the thirteenth century and the oldest mathematical trick--and much more!"

WAR OF THE WORLDVIEWS

WHERE SCIENCE AND SPIRITUALITY MEET-AND DO NOT

Harmony *Two authors -- one from the field of physics, the other from the realm of spirituality -- debate the most fundamental questions about human existence.*

THE USEFULNESS OF USELESS KNOWLEDGE

Princeton University Press *"Original essay 'The Usefulness of Useless Knowledge' copyright A1939 by Harper's Magazine. All rights reserved. Reproduced from the October issue by special permission"--Title page verso.*

EUCLID'S WINDOW

THE STORY OF GEOMETRY FROM PARALLEL LINES TO HYPERSPACE

Penguin UK *This text leads us on a journey through five revolutions in geometry, via biographical stories, from the Greek concept of parallel lines to contemporary notions of hyperspace. It reveals simple questions that have been the hidden engines of major achievements in science and technology.*

NANOTECHNOLOGY FOR DUMMIES

John Wiley & Sons

THE MIND-BODY PROBLEM AND ITS SOLUTION (SECOND EDITION)

Go to Publish *OVER THE LAST CENTURY scientists have made tremendous strides in understanding the physical nature of the universe and the biochemical nature of life. Yet the most salient feature of individual lives--our day-to-day consciousness and experience of the world, or "sentience"--remains stubbornly immune to scientific explanation. This divide is called the "mind-body problem," and it is centuries old. In this book, author Carey Carlson performs two valuable tasks. First, he lays out the mind-body problem in crystalline common-sense prose. Second, he proposes an intriguing solution based on the work of early-twentieth-century philosophers Bertrand Russell and Alfred North Whitehead. This book will be of interest both to general readers of science and philosophy and to those steeped in the literature. The second edition includes additional arrow diagrams in Chapter 5 that fortify Russell and Whitehead's view of physics as a causal web of time-ordered events.*

SELECTED PAPERS OF RICHARD FEYNMAN

WITH COMMENTARY

World Scientific *Selected articles on quantum chemistry, classical and quantum electrodynamics, path integrals and operator calculus, liquid helium, quantum gravity and computer theory*

ESSENTIALS OF NANOTECHNOLOGY

Bookboon

THE MULTIVERSE

The multiverse is a concept that acknowledges the existence of a multiplicity of worlds or universes. The designs of these universes do not have to be the same as our universe, but we have no clear view of what the "other" designs might be. It is suspected that they can obey different laws of physics and different constants of physics, which further implies different chemistry, biology, and life. Some say that the universes within the multiverse allow for different mathematics or even for different metamathematical logic. This book discusses most of the above aspects of the multiverse concept starting with the philosophy, through all the mathematical and physical subtleties, finally exploring the origin of life and consciousness. This book provides a satisfying intellectual exploration of front-edge advances in contemporary cosmology.

THE SCIENCE BOOK

BIG IDEAS SIMPLY EXPLAINED

Dorling Kindersley Ltd *Did the Universe start with a Big Bang? Is light a wave, a particle - or both? Are we the cause of global warming? Science has made it possible to comprehend the world we live in and the theoretical multiverses beyond, offering technological advances and extending the frontiers of knowledge. Written in plain English, The Science Book presents 80 of the most trailblazing ideas in physics, chemistry, and biology. It is packed with short, pithy explanations that cut through the jargon, step-by-step diagrams that untangle knotty theories, classic quotes that make scientific discoveries memorable, and witty illustrations that enhance and play with our understanding of science. Whatever your grasp of the subject, whether you're a keen student or an armchair expert, you'll find plenty to stimulate you within this book. Part of the popular "Big Ideas" series, The Science Book is the perfect way to explore this fascinating subject.*