

The Einstein Enigma

Examines the ramifications of Einstein's relativity theory, exploring the mysteries of time and considering black holes, time travel, the existence of God, and the nature of the universe

Introduces the superstring theory that attempts to unite general relativity and quantum mechanics

An accessible introduction to modern physics that focuses on wormholes and discusses among other topics their structure, stability, dynamics, operation as time machines, utility as portals to parallel universes, and their implications for the distant future of humanity. Read the point "principles" scattered throughout to quickly absorb the basics of wormhole physics. Go back and read the interstitial material for greater depth. Written by a physicist with years of experience in gently introducing physics to the mathematically challenged, it also covers the and delineates the unsolved problems at the forefront of research.

One of Galileo's fingers is in a museum in Florence, Napoleon's severed penis is in the hands, as it were, of an American urologist. And the brain of the greatest thinker of the 20th century lay until recently in two muday cookie jars under a box behind a beer cooler in Wichita, Kansas. In 1955 Princeton pathologist Thomas Harvey seized the chance to salvage the great thinker's brain. Possessed by the idea that it might hold the key to the enigma of Einstein's genius, Harvey became the unlikely custodian of the organ responsible for the Theory of Relativity - a feat celebrated in 2005. The author tells the bizarre story of Einstein's brain as it roamed the world in mayonnaise jars and courier packages, taking over one man's life for half a century.

Possessing Genius
The Physics of Stargates
The Elegant Experiment That Captures the Enigma of Our Quantum Reality
The Fourth Dimension
The Einstein Enigma
Through Two Doors at Once
From Aristotle to Einstein
When the Titanic sank, it took a secret with it In the vast expanse of the Atlantic, 375 miles off the coast of Newfoundland, a ship's crew film an extraordinary event: the ocean, covered with millions of floating fish, bubbles as though boiling. Then an enormous whale roars through the water and crashes down, dead, onto the surface. Some 13,000ft beneath - at these precise coordinates - lies the wreck of the Titanic. Within twenty-four hours, the video has become a global phenomenon. Commander Jerry Derham, charged with investigating the incident, rushes to see marine archaeologists Kate Wetherall and Lou Bates. The one-time couple specialize in deep-sea-diving and the scientific study of shipwrecks. Jerry needs to get the pair down to the ocean floor - fast. None of them are prepared for what they find there. Someone on the Titanic had been keeping a secret: one that cost lives. A secret that has remained trapped beneath the ocean for a hundred years. And now there are those who would kill again to get hold of what one man died for in 1912 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 was reproduced from the original artifact, and remains as true to the original work as possible. Therefore, you will see the original copyright references, library stamps (as most of these works have been housed in our most important libraries around the world), and other notations in the work. 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. As a reproduction of a historical artifact, this work may contain missing or blurred pages, poor pictures, errant marks, etc. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant. As a former colleague of Oppenheimer's, Bernstein has composed a narrative that is both personal and historical, bringing the reader closer to the life and workings of an extraordinary and controversial man.

"The eternal mystery of the world is its comprehensibility ... The fact that it is comprehensible is a miracle."
—Albert Einstein, 1936
Albert Einstein's universal appeal is only partially explained by his brilliant work in physics, as Andrew Robinson demonstrates in this authoritative, accessible, and richly illustrated biography. The main narrative is enriched by twelve essays by well-known scientists, scholars, and artists, including three Nobel Laureates. The book presents clearly the beautiful simplicity at the heart of Einstein's greatest discoveries, and explains how his ideas have continued to influence scientific developments such as lasers, the theory of the big bang, and "theories of everything."
Einstein's life and activities outside of science are also considered, including his encounters with famous contemporaries such as Chaplin, Roosevelt, and Tagore, his love of music, and his troubled family life. The book recognizes that Einstein's striking originality was expressed in many ways, from his political and humanitarian campaigns against nuclear weapons, anti-Semitism, McCarthyism, and social injustices, to his unconventional personal appearance. Published in association with the Albert Einstein Archives at the Hebrew University of Jerusalem, the book draws on this exceptional resource of Einstein's private papers and personal photographs. This new edition, published to recognize the centenary of the publication of Einstein's General Theory of Relativity, includes an important new afterword by Diana Kormos Buchwald, the director of the Einstein Papers Project at the California Institute of Technology. The contributors are Philip Anderson, Arthur C. Clarke, I. Bernard Cohen, Freeman Dyson, Philip Glass, Stephen Hawking, Max Jammer, Diana Kormos Buchwald, João Magueijo, Joseph Rotblat, Robert Schulmann, and Steven Weinberg.

The Physicist and the Philosopher

The Second Kind of Impossible

Albert, Niels, and John

Why Is the Universe Just Right for Life?

Final Theory

Carl Einstein and the Ground of Modern Art

Oppenheimer

[Note: The most complete version of the big picture that eluded Einstein in his attempts to unveil a unified field theory can be found in the book, The Gravity Cycle, by the same author as this book. This book, Einstein Was Wrong!, was one of many approaches to the ideas that will shake the very foundations of physical science upon which we presently stand.] Modern Physics is built on an erroneous foundation. If we are to take physics to a new level where gravity can be explained from an atomic/quantum perspective, then someone must boldly say, "Einstein was wrong, but so was Newton." Because they both started with the same wrong premise, their theories of gravity were destined to fall short in any attempt to connect them to atomic/quantum processes. And the same false premise that stifled Einstein in his ability to connect "the movement of planets and stars with the tiniest subatomic particles" prevents modern physicists from explaining the fourth and final force from an atomic/quantum perspective. Alas, "...when one starts with a wrong premise, no amount of patching can right the problem." But all is not lost. By correcting Newton's mistake (the wrong premise), a new foundation for understanding the role of the atom in the momentum, relativity, and gravity of masses emerges in the form of two new theories: The Atomic Model of Motion (AMM) and The Galaxy Gravity Cycle (GGC). These two theories combine to paint the big picture of how atomic/quantum processes are involved in holding a galaxy together, keeping planets orbiting stars, and preventing people from floating off into space. This book is dedicated to Occam's razor.

The explosive debate that transformed our views about time and scientific truth On April 6, 1922, in Paris, Albert Einstein and Henri Bergson publicly debated the nature of time. Einstein considered Bergson's theory of time to be a soft, psychological notion, irreconcilable with the quantitative realities of physics. Bergson, who gained fame as a philosopher by arguing that time should not be understood exclusively through the lens of science, criticized Einstein's theory of time for being a metaphysics grafted on to science, one that ignored the intuitive aspects of time. The Physicist and the Philosopher tells the remarkable story of how this explosive debate transformed our understanding of time and drove a rift between science and the humanities that persists today. Jimena Canales introduces readers to the revolutionary ideas of Einstein and Bergson, describes how they dramatically collided in Paris, and traces how this clash of worldviews reverberated across the twentieth century. She shows how it provoked responses from figures such as Bertrand Russell and Martin Heidegger, and carried repercussions for American pragmatism, logical positivism, phenomenology, and quantum mechanics. Canales explains how the new technologies of the period—such as wristwatches, radio, and film—helped to shape people's conceptions of time and further polarized the public debate. She also discusses how Bergson and Einstein, toward the end of their lives, each reflected on his rival's legacy—Bergson during the Nazi occupation of Paris and Einstein in the context of the first hydrogen bomb explosion. The Physicist and the Philosopher is a magisterial and revealing account that shows how scientific truth was placed on trial in a divided century marked by a new sense of time.

In trying to understand the atom, physicists built quantum mechanics, the most successful theory in science and the basis of one-third of our economy. They found, to their embarrassment, that with their theory, physics encounters consciousness. Authors Bruce Rosenblum and Fred Kuttner explain all this in non-technical terms with help from some fanciful stories and anecdotes about the theory's developers. They present the quantum mystery honestly, emphasizing what is and what is not speculation. Quantum Enigma's description of the experimental quantum facts, and the quantum theory explaining them, is undisputed. Interpreting what it all means, however, is heatedly controversial. But every interpretation of quantum physics involves consciousness. Rosenblum and Kuttner therefore turn to exploring consciousness itself—and encounter quantum mechanics. Free will and anthropic principles become crucial issues, and the connection of consciousness with the cosmos suggested by some leading quantum cosmologists is mind-blowing. Readers are brought to a boundary where the particular expertise of physicists is no longer the only sure guide. They will find, instead, the facts and hints provided by quantum mechanics and the ability to speculate for themselves. In the few decades since the Bell's theorem experiments established the existence of entanglement (Einstein's "spooky action"), interest in the foundations, and the mysteries, of quantum mechanics has accelerated. In recent years, physicists, philosophers, computer engineers, and even biologists have expanded our realization of the significance of quantum phenomena. This second edition includes such advances. The authors have also drawn on many responses from readers and instructors to improve the clarity of the book's explanations.

One of Smithsonian's Favorite Books of 2018
One of Forbes's 2018 Best Books About Astronomy, Physics and Mathematics
One of Kirkus's Best Books of 2018
The intellectual adventure story of the "double-slit" experiment, showing how a sunbeam split into two paths first challenged our understanding of light and then the nature of reality itself—and continues to almost 200 years later. Many of science's greatest minds have grappled with the simple yet elusive "double-slit" experiment. Thomas Young devised it in the early 1800s to show that light behaves like a wave, and in doing so opposed Isaac Newton. Nearly a century later, Albert Einstein showed that light comes in quanta, or particles, and the experiment became key to a fierce debate between Einstein and Niels Bohr over the nature of reality. Richard Feynman held that the double slit embodies the central mystery of the quantum world. Decade after decade, hypothesis after hypothesis, scientists have returned to this ingenious experiment to help them answer deeper and deeper questions about the fabric of the universe. How can a single particle behave both like a particle and a wave? Does a particle exist before we look at it, or does the very act of looking create reality? Are there hidden aspects to reality missing from the orthodox view of quantum physics? Is there a place where the quantum world ends and the familiar classical world of our daily lives begins, and if so, can we find it? And if there's no such place, then does the universe split into two each time a particle goes through the double slit? With his extraordinarily gifted eloquence, Anil Ananthaswamy travels around the world and through history, down to the smallest scales of physical reality we have yet fathomed. Through Two Doors at Once is the most fantastic voyage you can take.

Einstein Was Wrong!

Codebreakers

The Other Einstein

When We Cease to Understand the World

Einstein

A Hundred Years of Relativity

The Einstein Theory of Relativity

One of PopSugar's "25 Books You're Going to Curl Up with this Fall."
"The Other Einstein takes you into Mileva's heart, mind, and study as she tries to forge a place for herself in a scientific world dominated by men."—Bustle
In the tradition of The Paris Wife and Mrs. Poe, The Other Einstein offers us a window into a brilliant, fascinating woman whose light was lost in Einstein's enormous shadow. It is the story of Einstein's wife, a brilliant physicist in her own right, whose contribution to the special theory of relativity is hotly debated and may have been inspired by her own profound and very personal insight. Mitza Maric has always been a little different from other girls. Most twenty-year-olds are wives by now, not studying physics at an elite Zurich university with only male students trying to outdo her clever calculations. But Mitza is smart enough to know that, for her, math is an easier path than marriage. And then fellow student Albert Einstein takes an interest in her, and the world turns sideways. Theirs becomes a partnership of the mind and of the heart, but there might not be room for more than one genius in a marriage.

Einstein's essays explore science as the basis for a "cosmic" religion, embraced by all who share a sense of wonder in the universe. Additional topics include pacifism, disarmament, and Zionism.

One of The New York Times Book Review's 10 Best Books of 2021
Shortlisted for the 2021 International Booker Prize
A fictional examination of the lives of real-life scientists and thinkers whose discoveries resulted in moral consequences beyond their imagining. When We Cease to Understand the World is a book about the complicated links between scientific and mathematical discovery, madness, and destruction. Fritz Haber, Alexander Grothendieck, Werner Heisenberg, Erwin Schrödinger—these are some of luminaries into whose troubled lives Benjamin Labatut thrusts the reader, showing us how they grappled with the most profound questions of existence. They have strokes of unparalleled genius, alienate friends and lovers, descend into isolation and insanity. Some of their discoveries reshape human life for the better; others pave the way to chaos and unimaginable suffering. The lines are never clear. At a breakneck pace and with a wealth of disturbing detail, Labatut uses the imaginative resources of fiction to tell the stories of the scientists and mathematicians who expanded our notions of the possible.

Who was the enigma the world knows as Christopher Columbus . . . and why has his true identity been covered up for centuries? When an aged scholar is found mysteriously dead in his hotel room, Thomas Noronha, expert cryptographer and professor of history, is called upon to finish the man's unresolved investigation. In the course of unraveling the puzzles and cryptograms shrouding his late predecessor's work, Thomas discovers a code that will set him on a breathtaking race across the globe—from Lisbon to Rio to New York and Jerusalem—as he is drawn into one of the greatest mysteries of all time, a shocking revelation that will alter everything we've always believed about one of the world's most celebrated adventurers.

Einstein on Cosmic Religion and Other Opinions and Aphorisms

Riddles, Paradoxes, and Conundrums to Stretch Your Mind

When You Reach Me

The Mind of Science

His Legacy in Science, Art, and Modern Culture

But So Was Newton

The Cosmos in My Bubble Bath

Pre-publication subtitle: The birth of relativity amid the vicious nationalism of World War I.

A NEW YORK TIMES BESTSELLER *The official book behind the Academy Award-winning film The Imitation Game, starring Benedict Cumberbatch and Keira Knightley It is only a slight exaggeration to say that the British mathematician Alan Turing (1912-1954) saved the Allies from the Nazis, invented the computer and artificial intelligence, and anticipated gay liberation by decades--all before his suicide at age forty-one. This New York Times--bestselling biography of the founder of computer science, with a new preface by the author that addresses Turing's royal pardon in 2013, is the definitive account of an extraordinary mind and life. Capturing both the inner and outer drama of Turing's life, Andrew Hodges tells how Turing's revolutionary idea of 1936--the concept of a universal machine--laid the foundation for the modern computer and how Turing brought the idea to practical realization in 1945 with his electronic design. The book also tells how this work was directly related to Turing's leading role in breaking the German Enigma ciphers during World War II, a scientific triumph that was critical to Allied victory in the Atlantic. At the same time, this is the tragic account of a man who, despite his wartime service, was eventually arrested, stripped of his security clearance, and forced to undergo a humiliating treatment program--all for trying to live honestly in a society that defined homosexuality as a crime. The inspiration for a major motion picture starring Benedict Cumberbatch and Keira Knightley, Alan Turing: The Enigma is a gripping story of mathematics, computers, cryptography, and homosexual persecution.*

A thrilling new science fiction mystery from the New York Times bestselling author of the Donovan novels Dr. Timothy Ryan, head of the military psychiatric unit at Grantham Barracks, is meeting a new patient, a woman known as "Prisoner Alpha." As she is being transferred, they are attacked by assassins, barely escaping with their lives. One shooter vanishes, leaving behind a dead companion unlike anyone Ryan has ever seen. But even more baffling is the puzzle of Alpha herself. She speaks in a strange tongue, and doodles in bars, dots, and little pictures like nothing Ryan has ever seen. Is she some sort of savant, or the most cunning spy he's ever met? Meanwhile, in Egypt, archaeologist Reid Farmer uncovers an 18th-dynasty tomb that shouldn't exist, filled with Mayan epigraphy, mathematics, and materials that didn't exist 3,000 years ago. As a result of this discovery, Reid and forensic anthropologist Kilgore France—along with the sarcophagus they have found—are snatched away to a hidden lab to solve the enigma of a man lost in time. As dark forces gather, Alpha makes an impossible escape from Grantham. Ryan quickly becomes the prime suspect in her disappearance, but with a team of unique allies, sets out to prove his innocence. Together, they must find Alpha and save Ryan before it is too late.

"Like A Wrinkle in Time (Miranda's favorite book), When You Reach Me far surpasses the usual whodunit or sci-fi adventure to become an incandescent exploration of 'life, death, and the beauty of it all.'" —The Washington Post This Newbery Medal winner that has been called "smart and mesmerizing," (The New York Times) and "superb" (The Wall Street Journal) will appeal to readers of all types, especially those who are looking for a thought-provoking mystery with a mind-blowing twist. Shortly after a fall-out with her best friend, sixth grader Miranda starts receiving mysterious notes, and she doesn't know what to do. The notes tell her that she must write a letter—a true story, and that she can't share her mission with anyone. It would be easy to ignore the strange messages, except that whoever is leaving them has an uncanny ability to predict the future. If that is the case, then Miranda has a big problem—because the notes tell her that someone is going to die, and she might be too late to stop it. Winner of the Boston Globe–Horn Book Award for Fiction A New York Times Bestseller and Notable Book Five Starred Reviews A Junior Library Guild Selection "Absorbing." —People "Readers . . . are likely to find themselves chewing over the details of this superb and intricate tale long afterward." —The Wall Street Journal "Lovely and almost impossibly clever." —The Philadelphia Inquirer "It's easy to imagine readers studying Miranda's story as many times as she's read L'Engle's, and spending hours pondering the provocative questions it raises." —Publishers Weekly, Starred review Codex 632

The Bizarre Odyssey of Einstein's Brain

The Elegant Universe

Enigma of Time

Arne Beurling and the Swedish Crypto Program During World War II

Albert Einstein

Confronting the Quantum Enigma

An acclaimed physicist and cosmologist considers the multiverse and more: " Very readable indeed . . . This is Doctor Who, but for real. " —TheGuardian
The Goldilocks Enigma is Paul Davies' s eagerly awaited return to cosmology, the successor to his critically acclaimed bestseller The Mind of God. Here he tackles all the " big questions, " including the biggest of them all: Why does the universe seem so well adapted for life? In his characteristically clear and elegant style, Davies shows how recent scientific discoveries point to a perplexing fact: many different aspects of the cosmos, from the properties of the humble carbon atom to the speed of light, seem tailor-made to produce life. A radical new theory says it' s because our universe is just one of an infinite number of universes, each one slightly different. Our universe is bio-friendly by accident—we just happened to win the cosmic jackpot. While this " multiverse " theory is compelling, it has bizarre implications, such as the existence of infinite copies of each of us and Matrix-like simulated universes. And it still leaves a lot unexplained. Davies believes there' s a more satisfying solution to the problem of existence: the observations we make today could help shape the nature of reality in the remote past. If this is true, then life—and, ultimately, consciousness—aren' t just incidental byproducts of nature, but central players in the evolution of the universe. Whether he' s elucidating dark matter or dark energy, M-theory or the multiverse, Davies brings the leading edge of science into sharp focus, provoking us to think about the cosmos and our place within it in new and thrilling ways.

"The need for scientific knowledge springs from a natural human curiosity to understand our world, but also from a genuine desire to help humanity. The great scientific discoveries have given us incredible knowledge about the natural world, have improved our lives through new technologies, and have taught us a great deal about the capabilities and the limitations of our human perspective."
In The Mind of Science: From Aristotle to Einstein, author Michael Sidropoulos takes you on a thought-provoking journey through the history of science from a philosophical standpoint. Beginning with the calculation of the size of the earth by Eratosthenes, chief librarian at the Library of Alexandria, Sidropoulos for the most part avoids the use of mathematical formulas as he explores the ideas, and ideals, that lie behind scientific advancement throughout the ages. It's a fascinating voyage that will enrich you with a greater awareness of the interplay between science and philosophy—how they're similar, how they're different, and how they complement each other.

Princeton, New Jersey, 1951: As a CIA operative watches from the shadows, two old men—Israeli prime minister David Ben-Gurion and world-renowned scientist Albert Einstein—enter Einstein' s home to speak privately about nuclear weapons and the existence of God. Present Day Cairo, Egypt: Over lunch in the Muslim quarter, world-famous cryptanalyst Thomas Noronha is hired by a beautiful dark-haired woman, Ariana Pakravan, to decipher a cryptogram hidden in a recently discovered secret document under heavy security in Tehran. A manuscript penned by Albert Einstein, it is titled Die Gottesformel: The God Formula. So begins a remarkable adventure that spans the world, as Thomas and Ariana pursue the dangerous truth behind an incredible document. The Einstein Enigma is a breathtaking fusion of science, thriller, and religion, a mind-bending trip to the source of time, the essence of the universe, and the meaning of life itself.

The Einstein EnigmaA NovelHarper Paperbacks Einstein for the 21st Century How Relativity Triumphed Amid the Vicious Nationalism of World War I Reality Vs Quantum Mysticism Physics Encounters Consciousness The Book That Inspired the Film The Imitation Game - Updated Edition Form as Revolt Einstein's Unfinished Revolution

More than fifty years after his death, Albert Einstein's vital engagement with the world continues to inspire others, spurring conversations, projects, and research, in the sciences as well as the humanities. Einstein for the 21st Century shows us why he remains a figure of fascination. In this wide-ranging collection, eminent artists, historians, scientists, and social scientists describe Einstein's influence on their work, and consider his relevance for the future. Scientists discuss how Einstein's vision continues to motivate them, whether in their quest for a fundamental description of nature or in their investigations in chaos theory; art scholars and artists explore his ties to modern aesthetics; a music historian probes Einstein's musical tastes and relates them to his outlook in science; historians explore the interconnections between Einstein's politics, physics, and philosophy; and other contributors examine his impact on the innovations of our time. Uniquely cross-disciplinary, Einstein for the 21st Century serves as a testament to his legacy and speaks to everyone with an interest in his work. The contributors are Leon Botstein, Lorraine Daston, E. L. Doctorow, Yehuda Elkana, Yaron Ezrahi, Michael L. Friedman, Jürg Fröhlich, Peter L. Galison, David Gross, Hanoch Gutfreund, Linda D. Henderson, Dudley Herschbach, Gerald Holton, Caroline Jones, Susan Neiman, Lisa Randall, Jürgen Renn, Matthew Ritchie, Silvan S. Schweber, and A. Douglas Stone.

A philosopher and mathematician presents fifty of the most engrossing, ingenious riddles ever devised. Riddles, paradoxes, and puzzles have been confusing and delighting people for millennia. Zeno of Elea wondered how a hare could ever catch a tortoise in a race: every time the hare catches up, the tortoise has moved very slightly ahead. Schrödinger had his cat, Bertrand his box, and Russell his paradoxes. These time-honored mind benders have tantalized and mesmerized us for years. Now, in one book, Jeremy Stangroom presents the classics in this field: the Monty Hall Problem; the Liar's Paradox; the Hangman's Paradox; and, of course, Einstein's Riddle. Stylishly designed and lucidly written, this book is a classic of its genre. It's perfect for beginning logicians—Einstein devised the titular riddle when he was a child—and advanced thinkers the world around. By turns infuriating, fascinating, and gloriously satisfying, these puzzles will keep you thinking and guessing from beginning to end.

A biography of Albert Einstein also delves into his development both personally and as a scientist, exploring everything from his childhood idiosyncrasies to overheard conversations with colleagues 'Einheitliche Feldtheorie'. The final words of his dying mentor will change David Swift's life forever. Within hours of hearing those words, David is arrested, interrogated and almost assassinated. But he's too busy running for his life to work out what it all means. Has he accidentally inherited Einstein's Unified Theory -- a set of equations with the power to destroy the world? Einstein died without discovering the theory. Or did he? Teaming up with his ex-girlfriend and an autistic teenager addicted to video games, David must ensure he survives long enough to find out the truth -- and deal with the terrifying consequences.

The Titanic Enigma The Secret of Christopher Columbus: A Novel Perceptions Einstein, Bergson, and the Debate That Changed Our Understanding of Time A Novel Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory

One of the greatest accomplishments in the history of cryptography occurred in 1940 when a Swedish mathematician broke the German code used for strategic military communications. This story has all the elements of a classic thriller: a desperate wartime situation; a moody and secretive mathematical genius with a talent for cryptography; and a stunning mathematical feat, mysterious to this day. Arne Beurling, the man who inherited Einstein's office at Princeton's Institute for Advanced Study, was the figure who played this role at a crucial moment in world history. The author, Bengt Beckman, for many years was the head of the cryptanalysis department of the Swedish signal intelligence agency. He has crafted a book that a reader at any level of mathematical sophistication will thoroughly enjoy. It will appeal to a broad audience of readers, from historians and biography buffs to mathematicians to anyone with a passing interest in cryptology and cryptanalysis.

The bubbles were swirling all around me, massaging my body. As I luxuriated in this fantastic bath, I gasped realizing that those bubbles carried with them miniature galaxies bringing the entire Cosmos into my bathtub... Alfie is back. And so are George and other characters from the author’s previous book Einstein’s Enigma or Black Holes in My Bubble Bath. While the present book, Universe Unveiled - The Cosmos in My Bubble Bath, is completely independent, its storyline can be considered a sequel to the previous one. The scientific content spanning ancient world models to the most recent mysteries of cosmology is presented in an entirely nontechnical and descriptive style through the discussions between Alfie, the enlightened learner, and George, professor of astrophysics. Fantasies, based on these discussions that cover the scientific facts, are created by the magical bubble baths taken by Alfie. Universe Unveiled blends accurate science with philosophy, drama, humour, and fantasy to create an exciting cosmic journey that reads like a novel and educates as it entertains. “Spurred by a series of mind-bending discoveries, Man’s millennial love affair with the stars has now reached fever pitch. No one writing today is better positioned to evoke the romance and beauty of these cosmic discoveries than Vishveshwara. A leading expert in Einstein’s relativity theory, he brings a lyrical voice and a poetic sensibility to this joyful task. Universe Unveiled, a unique literary creation, transports readers into believing they can actually hear the music of the spheres.” Professor Robert Fuller, Former President, Oberlin College (USA)

Author of Somebodies and Nobodies: Overcoming the Abuse of Rank

This is a fascinating and enjoyable popular science book on gravity and black holes. It offers an absorbing account on the history of research on the universe and gravity from Aristotle via Copernicus via Newton to Einstein. The author possesses high literary qualities and is celebrated relativist. The physics of black holes constitutes one of the most fascinating chapters in modern science. At the same time, there is a fanciful quality associated with this strange and beautiful entity. The black hole story is undoubtedly an adventure through physics, philosophy, history, fiction and fantasy. This book is an attempt to blend all these elements together.

Mansourou comes out of the gate firing and does not relent in this criticism of religious notions and influence. Rather than refer to religion in general terms or acts in the name of religion, Mansourou attacks religious undertones and what is not often looked at in religious subtext along with modern religious theology for their shallow and vacant themes in today’s complex society.

Einstein's Unification

Parallel Universes, Time Travel, and the Enigma of Wormhole Physics

Portrait of an Enigma

(Newbery Medal Winner)

The Cambridge Companion to Einstein

Quantum Enigma

An Attempt to Resolve Issues with Relativity and Quantum Mechanics and Explain Dark Energy

**Shortlisted for the 2019 Royal Society Insight Investment Science Book Prize* One of the most fascinating scientific detective stories of the last fifty years, an exciting quest for a new form of matter. “A riveting tale of derring-do” (Nature), this book reads like James Gleick’s Chaos combined with an Indiana Jones adventure. When leading Princeton physicist Paul Steinhardt began working in the 1980s, scientists thought they knew all the conceivable forms of matter. The Second Kind of Impossible is the story of Steinhardt’s thirty-five-year-long quest to challenge conventional wisdom. It begins with a curious geometric pattern that inspires two theoretical physicists to propose a radically new type of matter—one that raises the possibility of new materials with never before seen properties, but that violates laws set in stone for centuries. Steinhardt dubs this new form of matter “quasicrystal.” The rest of the scientific community calls it simply impossible. The Second Kind of Impossible captures Steinhardt’s scientific odyssey as it unfolds over decades, first to prove viability, and then to pursue his wildest conjecture—that nature made quasicrystals long before humans discovered them. Along the way, his team encounters clandestine collectors, corrupt scientists, secret diaries, international smugglers, and KGB agents. Their quest culminates in a daring expedition to a distant corner of the Earth, in pursuit of tiny fragments of a meteorite forged at the birth of the solar system. Steinhardt’s discoveries chart a new direction in science. They not only change our ideas about patterns and matter, but also reveal new truths about the processes that shaped our solar system. The underlying science is important, simple, and beautiful—and Steinhardt’s firsthand account is “packed with discovery, disappointment, exhilaration, and persistence...This book is a front-row seat to history as it is made” (Nature).*

The German writer and art critic Carl Einstein (1885–1940) has long been acknowledged as an important figure in the history of modern art, and yet he is often sidelined as an enigma. In Form as Revolt Sebastian Zeidler recovers Einstein's multifaceted career, offering the first comprehensive intellectual biography of Einstein in English.Einstein first emerged as a writer of experimental prose through his involvement with the anarchist journal Die Aktion. After a few limited forays into art criticism, he burst onto the art scene in 1915 with his book Negro Sculpture, at once a formalist intervention into the contemporary theory and practice of European sculpture and a manifesto for the sophistication of African art. Einstein would go on to publish seminal texts on the cubist paintings of Georges Braque and Pablo Picasso. His contributions to the surrealist magazine Documents (which Einstein cofounded with Georges Bataille), including writings on Picasso and Paul Klee, remain unsurpassed in their depth and complexity.In a series of close visual analyses—illustrated with major works by Braque, Picasso, and Klee—Zeidler retrieves the theoretical resources that Einstein brought to bear on their art. Form as Revolt shows us that to rediscover Einstein's art criticism is to see the work of great modernist artists anew through the eyes of one of the most gifted left-wing formalists of the twentieth century.

Princeton, New Jersey-1951. Just off a small street, an unidentified man stands hidden, carefully monitoring an unfolding scene. A police-escorted motorcade stops at a small, unremarkable house while an old man with a shock of white hair jumps out of the lead car. As he ambles up the walkway, another man around the same age, also sporting wild white hair, descends from the porch and warmly greets him. The observer lurking in the shadows is from the CIA; fellow operatives are also close by, recording the conversation taking place inside the house between newly arrived Israeli prime minister David Ben-Gurion and his host, the world-renowned scientist Albert Einstein. The subject of their conversation: nuclear weapons and the existence of God. Cairo, Egypt—today. World-famous cryptanalyst Thomas Noronha is waiting on the front steps of the Egyptian Museum when an attractive, dark-haired woman approaches and invites him to lunch in the Muslim quarter. Her name is Ariana Pakravan. Over the course of their lunch she hires Thomas to decipher a cryptogram hidden in a secret document that has recently been discovered and is under heavy security in Tehran. Penned by Albert Einstein, the manuscript's title is, simply, Die Gottesformel: The God Formula. Thus begins a story of love and treason, a fast-paced adventure that takes Thomas and Ariana on a breathtaking pursuit from Cairo to Lhasa, from Princeton to Tehran, from Coimbra to Shigatse. Along the way, The Einstein Enigma offers up a mystic fusion of science and religion, a meeting of Einstein and God in an unforgettable spiritual search, and a mind-bending trip to the source of time, the essence of the universe, and the meaning of life.

Einstein shocked the world by revealing that time can be different for different observers. This book offers a possible explanation of why it is so. It offers a never-attempted-before approach to understand the secret of time. As we all know, there is an intimate relationship between time and age of objects. But what is this relationship? The author dives deep into the possible relationships between time and age of objects- animate or inanimate- and, in turn, emerges with a novel concept of time- time is a measurement of age. The book proposes that time is acquired by age, not required for it; and thus, time is an acquired property of objects. The author also proposes that just as length, width and height are the measurements of physical extensions of objects (their three spatial dimensions) and not any independent entities; time too, being the measurement of their age, is not independent of objects. In this sense, time seems to be the fourth dimension of objects instead of space. The book attempts to justify its hypothesis by testing its compatibility with Theory of Relativity. Also discussed is the meaning of the so called passage of time and the arrow of time on the basis of the model of time proposed here. The meaning of the much debated concept of time-travel is thoroughly discussed here and it is proposed that this concept, in the sense that we usually take, is a myth. Even if you can manage to reach your future by overcoming all technological limitations (as we all know, theory of relativity allows it), all your friends will be there with you, witnessing the same future. The only difference will be- your clocks will not agree with those of your friends.

Sidelights on Relativity

Alan Turing: The Enigma

About Time

Einstein's War

Einstein's Enigma or Black Holes in My Bubble Bath

Einstein's Riddle

The Goldilocks Enigma

These fourteen essays by leading historians and philosophers of science introduce the reader to the work of Albert Einstein. Following an introduction that places Einstein's work in the context of his life and times, the essays explain his main contributions to physics in terms that are accessible to a general audience, including special and general relativity, quantum physics, statistical physics, and unified field theory. The closing essays explore the relation between Einstein's work and twentieth-century philosophy, as well as his political writings.

Why did Einstein tirelessly study unified field theory for more than 30 years? In this book, the author argues that Einstein believed he could find a unified theory of all of nature's forces by repeating the methods he thought he had used when he formulated general relativity. The book discusses Einstein's route to the general theory of relativity, focusing on the philosophical lessons that he learnt. It then addresses his quest for a unified theory for electromagnetism and gravity, discussing in detail his efforts with Kaluza-Klein and, surprisingly, the theory of spinors. From these perspectives, Einstein's critical stance towards the quantum theory comes to stand in a new light. This book will be of interest to physicists, historians and philosophers of science.

Science has made tremendous advances in overcoming superstition and replacing "revealed truth" with proven factual truth. Quantum mechanics and the Theories of Relativity have contributed immensely to these advances. But, in spite of this, certain absurdities, referred to as the "quantum enigma", have emerged from the standard interpretation of quantum mechanics. This has been recognized by some physicists, but the absurdities have been largely ignored by most to the detriment of our understanding of the creation, evolution and nature of the universe. Albert Einstein himself felt quantum mechanics was incomplete and spent the last 3 or 4 decades of his life fighting the proponents of the absurdities. It has been claimed that Einstein lost this battle, but the author disagrees and provides proof of the opposite. Einstein may have made slight mistakes in developing his Theories of Relativity, however, that may have unintentionally contributed to the absurdities and the author's work supports the statement that "Einstein may have been wrong just where most thought he was right and right just where most thought he was wrong." The author provides a new analysis of space and time and corrections to aspects of quantum mechanics and the Theories of Relativity that may eliminate the absurdities. This could provide a new understanding of the birth, evolution and nature of the universe and possible explanations for dark energy and dark matter. This is presented in a manner that can be understood and appreciated by all curious folks, not just physicists, and will help them understand their universe and the amazing things physicists have accomplished.

A Biography

The Alpha Enigma

Universe Unveiled

The Extraordinary Quest for a New Form of Matter