

The Elegant Universe Superstrings Hidden Dimensions And The Quest For The Ultimate Theory

Introduces the superstring theory that attempts to unite general relativity and quantum mechanics. Are you looking for a great idea or some inspiration to start a new venture or to help you grow your existing business? This book contains 100 great business ideas, extracted from the world's best companies. Ideas provide the fuel for individuals and companies to create value and success. Indeed the power of ideas can even exceed the power of money. One simple idea can be the catalyst to move markets, inspire colleagues and employees, and capture the hearts and imaginations of customers. This book can be that very catalyst. Each idea is succinctly described and is followed by advice on how such an idea can be applied to the reader's own business situation. A simple but potentially powerful book for anyone seeking new inspiration and that killer application.

Twenty-fifth anniversary edition featuring a new Preface, invaluable for graduate students and researchers in high energy physics and astrophysics.

In a rare blend of scientific insight and writing as elegant as the theories it explains, Brian Greene,

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one of the world's leading string theorists, peels away the layers of mystery surrounding string theory to reveal a universe that consists of 11 dimensions, where the fabric of space tears and repairs itself, and all matter - from the smallest quarks to the most gargantuan supernovas - is generated by the vibrations of microscopically tiny loops of energy. Green uses everything from an amusement park ride to ants on a hose to explain the beautiful yet bizarre realities that modern physics to both illuminate and entertain, this book is a tour de force of scientific writing - a delightful, lucid voyage through modern physics that brings us closer to understanding how the universe works.

The universe has many secrets. It may hide additional dimensions of space other than the familiar three we recognize. There might even be another universe adjacent to ours, invisible and unattainable . . . for now. *Warped Passages* is a brilliantly readable and altogether exhilarating journey that tracks the arc of discovery from early twentieth-century physics to the razor's edge of modern scientific theory. One of the world's leading theoretical physicists, Lisa Randall provides astonishing scientific possibilities that, until recently, were restricted to the realm of science fiction. Unraveling the twisted threads of the most current debates on relativity, quantum mechanics, and gravity, she explores some of the most fundamental

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questions posed by Nature—taking us into the warped, hidden dimensions underpinning the universe we live in, demystifying the science of the myriad worlds that may exist just beyond our own. A new edition of the New York Times bestseller—now a three-part Nova special: a fascinating and thought-provoking journey through the mysteries of space, time, and matter. Now with a new preface (not in any other edition) that will review the enormous public reception of the relatively obscure string theory—made possible by this book and an increased number of adherents amongst physicists—The Elegant Universe "sets a standard that will be hard to beat" (New York Times Book Review). Brian Greene, one of the world's leading string theorists, peels away the layers of mystery surrounding string theory to reveal a universe that consists of eleven dimensions, where the fabric of space tears and repairs itself, and all matter—from the smallest quarks to the most gargantuan supernovas—is generated by the vibrations of microscopically tiny loops of energy. Today physicists and mathematicians throughout the world are feverishly working on one of the most ambitious theories ever proposed: superstring theory. String theory, as it is often called, is the key to the Unified Field Theory that eluded Einstein for more than thirty years. Finally, the century-old antagonism between the large and the small—General Relativity and Quantum Theory—is resolved.

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String theory proclaims that all of the wondrous happenings in the universe, from the frantic dancing of subatomic quarks to the majestic swirling of heavenly galaxies, are reflections of one grand physical principle and manifestations of one single entity: microscopically tiny vibrating loops of energy, a billionth of a billionth the size of an atom. In this brilliantly articulated and refreshingly clear book, Greene relates the scientific story and the human struggle behind twentieth-century physics' search for a theory of everything. Through the masterful use of metaphor and analogy, *The Elegant Universe* makes some of the most sophisticated concepts ever contemplated viscerally accessible and thoroughly entertaining, bringing us closer than ever to understanding how the universe works.

"It would be hard to imagine a better guide to this difficult subject."--*Scientific American* In *Three Roads to Quantum Gravity*, Lee Smolin provides an accessible overview of the attempts to build a final "theory of everything." He explains in simple terms what scientists are talking about when they say the world is made from exotic entities such as loops, strings, and black holes and tells the fascinating stories behind these discoveries: the rivalries, epiphanies, and intrigues he witnessed firsthand.

"Provocative, original, and unsettling." -*The New York Review of Books* "An excellent writer, a creative thinker."-*Nature*

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What happens when something is sucked into a black hole? Does it disappear? Three decades ago, a young physicist named Stephen Hawking claimed it did-and in doing so put at risk everything we know about physics and the fundamental laws of the universe. Most scientists didn't recognize the import of Hawking's claims, but Leonard Susskind and Gerard t'Hooft realized the threat, and responded with a counterattack that changed the course of physics. **THE BLACK HOLE WAR** is the thrilling story of their united effort to reconcile Hawking's revolutionary theories of black holes with their own sense of reality-effort that would eventually result in Hawking admitting he was wrong, paying up, and Susskind and t'Hooft realizing that our world is a hologram projected from the outer boundaries of space. A brilliant book about modern physics, quantum mechanics, the fate of stars and the deep mysteries of black holes, Leonard Susskind's account of the Black Hole War is mind-bending and exhilarating reading.

This book is a modern introduction to the ideas and techniques of quantum field theory. After a brief overview of particle physics and a survey of relativistic wave equations and Lagrangian methods, the author develops the quantum theory of scalar and spinor fields, and then of gauge fields. The emphasis throughout is on functional methods, which have played a large part in modern field theory. The book concludes with a brief

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survey of "topological" objects in field theory and, new to this edition, a chapter devoted to supersymmetry.

Graduate students in particle physics and high energy physics will benefit from this book.

The bestselling author of *The Elegant Universe* and *The Fabric of the Cosmos* tackles perhaps the most mind-bending question in modern physics and cosmology: Is our universe the only universe? There was a time when "universe" meant all there is. Everything. Yet, a number of theories are converging on the possibility that our universe may be but one among many parallel universes populating a vast multiverse. Here, Brian Greene, one of our foremost physicists and science writers, takes us on a breathtaking journey to a multiverse comprising an endless series of big bangs, a multiverse with duplicates of every one of us, a multiverse populated by vast sheets of spacetime, a multiverse in which all we consider real are holographic illusions, and even a multiverse made purely of math--and reveals the reality hidden within each. Using his trademark wit and precision, Greene presents a thrilling survey of cutting-edge physics and confronts the inevitable question: How can fundamental science progress if great swaths of reality lie beyond our reach? *The Hidden Reality* is a remarkable adventure through a world more vast and strange than anything we could have imagined.

A modern classic, *Einstein's Dreams* is a fictional collage of stories dreamed by Albert Einstein in 1905, about time, relativity and physics. As the defiant but sensitive young genius is creating his theory of relativity, a new conception of time, he imagines many possible

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worlds. In one, time is circular, so that people are fated to repeat triumphs and failures over and over. In another, there is a place where time stands still, visited by lovers and parents clinging to their children. In another, time is a nightingale, sometimes trapped by a bell jar. Now translated into thirty languages, Einstein's Dreams has inspired playwrights, dancers, musicians, and painters all over the world. In poetic vignettes, it explores the connections between science and art, the process of creativity, and ultimately the fragility of human existence. "From the world-renowned physicist, co-founder of the World Science Festival, and best-selling author of The Elegant Universe comes this utterly captivating exploration of deep time and humanity's search for purpose. Brian Greene takes readers on a breathtaking journey from the big bang to the end of time and invites us to ponder meaning in the face of this unimaginable expanse. He shows us how, from its original orderly state the universe has been moving inexorably toward chaos, and, still, remarkable structures have continually formed: the planets, stars, and galaxies that provide islands in a sea of disorder; biochemical mechanisms, including mutation and selection, animate life; neurons, information, and thought developed into complex consciousness which in turn gave rise to cultures and their timeless myths and creativity. And he describes, as well, how, in the deep reaches of the future, the nature of the universe will threaten the existence of matter itself. Through a series of nested stories Greene provides us with a clearer sense of how we came to be, a finer picture of where we are now, and a firmer understanding

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of where we are headed. Taken together, it is a completely new perspective on our place in the universe and on what it means to be human"--

A clear, plain-English guide to this complex scientific theory String theory is the hottest topic in physics right now, with books on the subject (pro and con) flying out of the stores. String Theory For Dummies offers an accessible introduction to this highly mathematical "theory of everything," which posits ten or more dimensions in an attempt to explain the basic nature of matter and energy. Written for both students and people interested in science, this guide explains concepts, discusses the string theory's hypotheses and predictions, and presents the math in an approachable manner. It features in-depth examples and an easy-to-understand style so that readers can understand this controversial, cutting-edge theory.

"The Quantum Revelation is mind-blowing." --Sting To say that quantum physics is the greatest scientific discovery of all time is not an exaggeration. In their discovery of the quantum realm, the physics community stumbled upon a genuine multifaceted revelation which can be likened to a profound spiritual treasure--a heretofore undreamed of creative power--hidden within our own mind. Quantum physics unequivocally points out that the study of the universe and the study of consciousness are inseparably linked, which is to say that ultimate progress in the one will be impossible without progress in the other. Einstein declared that what it reveals is so immensely important that "it should be everyone's concern." Yet few of us in the general public

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truly understand how the game-changing discoveries of the past century not only relate to our day-to-day lives, but also give us insights into the nature of reality and our place within it. Written for readers with no physics background, Paul Levy's latest book, *The Quantum Revelation: A Radical Synthesis of Science and Spirituality* is for those who have heard that quantum physics is a fascinating subject but don't quite understand how or why. Levy contemplates the deeper philosophical underpinnings of quantum physics, exploring the fundamental questions it provokes: What does it mean that quantum theory has discovered that there is no such thing as "objective reality?" How are we participating--via our consciousness--in creating our experience of a reality that quantum theory itself describes as "dreamlike?" What are the implications for us in our day-to-day lives that--as quantum theory reveals--what we call reality is more like a dream that we had previously imagined? *The Quantum Revelation* is unique in how it synthesizes science and spirituality so as to reveal and explore the dreamlike nature of reality. It is a book not just for people interested in quantum theory, but for anyone who is interested in waking up and dreaming lucidly, be it in our night dreams or our waking life.

The Theory of Special Relativity is one of the most profound discoveries of the twentieth century. Einstein's *Mirror* blends a simple, nonmathematical account of the theory of special relativity and gravitation with a description of the way experiments have triumphantly supported these theories. The authors explore the many

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applications of relativity in atomic and nuclear physics, which are many and range from satellite navigation systems, particle accelerators and nuclear power to quantum chemistry, antimatter and black holes. The book also features a superb collection of photographs and includes amusing anecdotes and biographies about the early pioneers. In the closing chapter, the authors examine the influence of Einstein's relativity on the development of science fiction. General readers with an interest in science will enjoy and benefit from this fascinating and accessible introduction to one of the most important areas of physics.

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

No one is more successful than this author when it comes to making the cutting edge of physics more accessible to a broad lay audience. In *Schrodinger's Kittens*, he took readers to the eerie world of subatomic particles & waves. Now, he explores the most exciting area of research in physics today: string theory. Following a series of major breakthroughs in the 1990s, physicists are putting together a clearer picture of how subatomic particles work. By hypothesizing particles as a single loop of vibrating "string," they are on the brink of discovering a way to explain all of nature's forces in a single theory. Grandly named "superstrings," & incorporating the ideas of "supersymmetry," these models are the prime candidate for the long sought-for "Theory of Everything."

Written in clear & accessible language. *The Search for Superstrings, Symmetry, & the Theory of Everything* brings to life the remarkable scientific research that is on the cusp of radically altering our conception of the universe.

The New York Times bestselling tour of the cosmos from

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three of today's leading astrophysicists Welcome to the Universe is a personal guided tour of the cosmos by three of today's leading astrophysicists. Inspired by the enormously popular introductory astronomy course that Neil deGrasse Tyson, Michael A. Strauss, and J. Richard Gott taught together at Princeton, this book covers it all—from planets, stars, and galaxies to black holes, wormholes, and time travel. Describing the latest discoveries in astrophysics, the informative and entertaining narrative propels you from our home solar system to the outermost frontiers of space. How do stars live and die? Why did Pluto lose its planetary status? What are the prospects of intelligent life elsewhere in the universe? How did the universe begin? Why is it expanding and why is its expansion accelerating? Is our universe alone or part of an infinite multiverse? Answering these and many other questions, the authors open your eyes to the wonders of the cosmos, sharing their knowledge of how the universe works. Breathtaking in scope and stunningly illustrated throughout, Welcome to the Universe is for those who hunger for insights into our evolving universe that only world-class astrophysicists can provide.

The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory W. W. Norton & Company So the world didn't end on 10 September 2008: but maybe it got you thinking... The world didn't end on 10 September 2008, but the possibility may have got you thinking: was it worth the risk? What is the point of science actually? Geoffrey Gorham considers these questions and explores the social and ethical implications of science by linking them to issues facing scientists today: human extinction, extraterrestrial intelligence, space colonization, and more.

Discusses the background of the superstring theory and shares interviews with some of the physicists working on a unified theory of nature

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From the acclaimed author of *Black Hole Blues and Other Songs from Outer Space*--an authoritative and accessible guide to the most alluring and challenging phenomena of contemporary science. Through her writing, astrophysicist Janna Levin has focused on making the science she studies not just comprehensible but also, and perhaps more important, intriguing to the nonscientist. In this book, she helps us to understand and find delight in the black hole--perhaps the most opaque theoretical construct ever imagined by physicists--illustrated with original artwork by American painter and photographer Lia Halloran. Levin takes us on an evocative exploration of black holes, provoking us to imagine the visceral experience of a black hole encounter. She reveals the influence of black holes as they populate the universe, sculpt galaxies, and even infuse the whole expanse of reality that we inhabit. Lively, engaging, and utterly unique, *Black Hole Survival Guide* is not just informative--it is, as well, a wonderful read from first to last.

'Compulsively readable...Green threatens to do for string theory what Stephen Hawking did for holes' *New York Times*
In this international bestseller, Columbia University professor Brian Greene provides, in layman's terms, a comprehensive demystification of string theory. Greene, one of the world's leading string theorists, peels away layers of the unknown, through introducing concepts from quantum mechanics to general relativity, to reveal a universe that consists of eleven dimensions. Accessible and enlightening, Greene's inimitable blend of expert scientific insight and literary ingenuity makes *The Elegant Universe* an exhilarating read that brings us closer to understanding how our magnificent universe works. 'Utterly absorbing...a brilliant achievement. An accessible, equationless account of strings' *Sunday Telegraph*
Explores the phenomenon of "dark matter," surveying speculation on this intriguing mystery throughout history and

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discussing contemporary theories

Setting aside the pervasive material bias of science and lifting the obscuring fog of religious sectarianism reveals a surprisingly clear unity of science and religion. The explanations of transcendent phenomena given by saints, sages, and near-death experiencers—miracles, immortality, heaven, God, and transcendent awareness—are fully congruent with scientific discoveries in the fields of relativity, quantum physics, medicine, M-theory, neuroscience, and quantum biology. The Physics of God describes the intersections of science and religion with colorful, easy-to-understand metaphors, making abstruse subjects within both science and religion easily accessible to the layman—no math, no dogma. This intriguing book: Pulls back the curtain on the light-show illusion we call matter. Connects string theory's hidden brane worlds to religion's transcendent heavens. Reveals the scientific secret of life and immortality: quantum biology's startling discovery that the human body is continuously entangled. Demonstrates the miracle-making power of our minds to effect instantaneous physiological changes. Explains how the intelligent observer effect confirms our high spiritual potential. Compelling and concise, The Physics of God will make you believe in the unity of science and religion and eager to experience the personal transcendence that is the promise of both.

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The biblical story of Adam and Eve in the Garden of Eden is a cornerstone of Western civilization, yet there are still many mysteries concerning its origins and meaning. In *The Mythology of Eden*, Arthur and Elena George utilize new historical and archaeological discoveries to reveal how the story's author uses veiled symbolism and mythological storytelling to convey his message about the most profound questions of human existence regarding the divine, life, death, and immortality. This innovative book offers an interdisciplinary interpretation of the Eden story that delves into incorrect assumptions and brings to light details that have previously gone unnoticed. *The Mythology of Eden* provides a new understanding of the story of Adam and Eve and illuminates the story's role and meaning in our modern world.

A futuristic reimagining of the classic Greek myth, as a boy ventures through deep space and challenges the awesome power of black holes. The beauty of the book lies in the images, provided by NASA and the Hubble Space telescope, and printed on board rather than paper. On board pages.

NEW YORK TIMES BEST SELLER • The epic story of the greatest quest in all of science—the holy grail of physics that would explain the creation of the universe—from renowned theoretical physicist and author of *The Future of the Mind* and *The Future of Humanity* When Newton discovered the law of

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gravity, he unified the rules governing the heavens and the Earth. Since then, physicists have been placing new forces into ever-grander theories. But perhaps the ultimate challenge is achieving a monumental synthesis of the two remaining theories—relativity and the quantum theory. This would be the crowning achievement of science, a profound merging of all the forces of nature into one beautiful, magnificent equation to unlock the deepest mysteries in science: What happened before the Big Bang? What lies on the other side of a black hole? Are there other universes and dimensions? Is time travel possible? Why are we here? Kaku also explains the intense controversy swirling around this theory, with Nobel laureates taking opposite sides on this vital question. It is a captivating, gripping story; what's at stake is nothing less than our conception of the universe. Written with Kaku's trademark enthusiasm and clarity, this epic and engaging journey is the story of *The God Equation*.

ABSTRACT: Analysis is given of the Omega Point cosmology, an extensively peer-reviewed proof (i.e., mathematical theorem) published in leading physics journals by professor of physics and mathematics Frank J. Tipler, which demonstrates that in order for the known laws of physics to be mutually consistent, the universe must diverge to infinite computational power as it collapses into a final cosmological singularity, termed the Omega Point. The theorem is

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an intrinsic component of the Feynman–DeWitt–Weinberg quantum gravity/Standard Model Theory of Everything (TOE) describing and unifying all the forces in physics, of which itself is also required by the known physical laws. With infinite computational resources, the dead can be resurrected—never to die again—via perfect computer emulation of the multiverse from its start at the Big Bang. Miracles are also physically allowed via electroweak quantum tunneling controlled by the Omega Point cosmological singularity. The Omega Point is a different aspect of the Big Bang cosmological singularity—the first cause—and the Omega Point has all the haecceities claimed for God in the traditional religions. From this analysis, conclusions are drawn regarding the social, ethical, economic and political implications of the Omega Point cosmology.

INSTANT NEW YORK TIMES BESTSELLER A Science News favorite science book of 2019 As you read these words, copies of you are being created. Sean Carroll, theoretical physicist and one of this world's most celebrated writers on science, rewrites the history of 20th century physics. Already hailed as a masterpiece, *Something Deeply Hidden* shows for the first time that facing up to the essential puzzle of quantum mechanics utterly transforms how we think about space and time. His reconciling of quantum mechanics with Einstein's theory of relativity

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changes, well, everything. Most physicists haven't even recognized the uncomfortable truth: physics has been in crisis since 1927. Quantum mechanics has always had obvious gaps—which have come to be simply ignored. Science popularizers keep telling us how weird it is, how impossible it is to understand. Academics discourage students from working on the "dead end" of quantum foundations. Putting his professional reputation on the line with this audacious yet entirely reasonable book, Carroll says that the crisis can now come to an end. We just have to accept that there is more than one of us in the universe. There are many, many Sean Carrolls. Many of every one of us. Copies of you are generated thousands of times per second. The Many Worlds Theory of quantum behavior says that every time there is a quantum event, a world splits off with everything in it the same, except in that other world the quantum event didn't happen. Step-by-step in Carroll's uniquely lucid way, he tackles the major objections to this otherworldly revelation until his case is inescapably established. Rarely does a book so fully reorganize how we think about our place in the universe. We are on the threshold of a new understanding—of where we are in the cosmos, and what we are made of.

Two world-renowned scientists present an audacious new vision of the cosmos that “steals the thunder from the Big Bang theory.” —Wall Street

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Journal The Big Bang theory—widely regarded as the leading explanation for the origin of the universe—posits that space and time sprang into being about 14 billion years ago in a hot, expanding fireball of nearly infinite density. Over the last three decades the theory has been repeatedly revised to address such issues as how galaxies and stars first formed and why the expansion of the universe is speeding up today. Furthermore, an explanation has yet to be found for what caused the Big Bang in the first place. In *Endless Universe*, Paul J. Steinhardt and Neil Turok, both distinguished theoretical physicists, present a bold new cosmology.

Steinhardt and Turok “contend that what we think of as the moment of creation was simply part of an infinite cycle of titanic collisions between our universe and a parallel world” (Discover). They recount the remarkable developments in astronomy, particle physics, and superstring theory that form the basis for their groundbreaking “Cyclic Universe” theory. According to this theory, the Big Bang was not the beginning of time but the bridge to a past filled with endlessly repeating cycles of evolution, each accompanied by the creation of new matter and the formation of new galaxies, stars, and planets. *Endless Universe* provides answers to longstanding problems with the Big Bang model, while offering a provocative new view of both the past and the future of the cosmos. It is a “theory that

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could solve the cosmic mystery” (USA Today).

Examines such phenomena as black holes, wormholes, singularities, gravitational waves, and time machines, exploring the fundamental principles that control the universe.

Reissued in new covers, this is the run-away bestseller from one of the world's leading theoretical physicists. Are there other dimensions beyond our own? Is time travel possible? Michio Kaku takes us on a tour of the most exciting work in modern physics, including research into the 10th dimension, time warps, and multiple universes, to outline what may be the leading candidate for the Theory of Everything.

The essential beginner's guide to string theory The Little Book of String Theory offers a short, accessible, and entertaining introduction to one of the most talked-about areas of physics today. String theory has been called the "theory of everything." It seeks to describe all the fundamental forces of nature. It encompasses gravity and quantum mechanics in one unifying theory. But it is unproven and fraught with controversy. After reading this book, you'll be able to draw your own conclusions about string theory. Steve Gubser begins by explaining Einstein's famous equation $E = mc^2$, quantum mechanics, and black holes. He then gives readers a crash course in string theory and the core ideas behind it. In plain English and with a minimum of mathematics, Gubser covers strings, branes, string dualities, extra dimensions, curved spacetime, quantum fluctuations, symmetry, and supersymmetry. He describes efforts to link string theory to experimental physics and uses

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analogies that nonscientists can understand. How does Chopin's *Fantasia-Improvisata* relate to quantum mechanics? What would it be like to fall into a black hole? Why is dancing a waltz similar to contemplating a string duality? Find out in the pages of this book. *The Little Book of String Theory* is the essential, most up-to-date beginner's guide to this elegant, multidimensional field of physics.

Sheds new light on discoveries that have revolutionized the field of cosmology and transformed understanding of the universe, offering an explanation of the multiverse M-theory and its implications in terms of the fate of our own universe.

From Brian Greene, one of the world's leading physicists and author of the Pulitzer Prize finalist *The Elegant Universe*, comes a grand tour of the universe that makes us look at reality in a completely different way. Space and time form the very fabric of the cosmos. Yet they remain among the most mysterious of concepts. Is space an entity? Why does time have a direction? Could the universe exist without space and time? Can we travel to the past? Greene has set himself a daunting task: to explain non-intuitive, mathematical concepts like String Theory, the Heisenberg Uncertainty Principle, and Inflationary Cosmology with analogies drawn from common experience. From Newton's unchanging realm in which space and time are absolute, to Einstein's fluid conception of spacetime, to quantum mechanics' entangled arena where vastly distant objects can instantaneously coordinate their behavior, Greene takes us all, regardless of our scientific backgrounds, on an

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irresistible and revelatory journey to the new layers of reality that modern physics has discovered lying just beneath the surface of our everyday world.

A half century ago, a shocking Washington Post headline claimed that the world began in five cataclysmic minutes rather than having existed for all time; a skeptical scientist dubbed the maverick theory the Big Bang. In this amazingly comprehensible history of the universe, Simon Singh decodes the mystery behind the Big Bang theory, lading us through the development of one of the most extraordinary, important, and awe-inspiring theories in science.

A deeply fascinating, engaging, and highly accessible explanation of Einstein's equation, using everyday life to explore the principles of physics.

String theory says we live in a ten-dimensional universe, but that only four are accessible to our everyday senses. According to theorists, the missing six are curled up in bizarre structures known as Calabi-Yau manifolds. In *The Shape of Inner Space*, Shing-Tung Yau, the man who mathematically proved that these manifolds exist, argues that not only is geometry fundamental to string theory, it is also fundamental to the very nature of our universe. Time and again, where Yau has gone, physics has followed. Now for the first time, readers will follow Yau's penetrating thinking on where we've been, and where mathematics will take us next. A fascinating exploration of a world we are only just beginning to grasp, *The Shape of Inner Space* will change the way we consider the universe on both its grandest and smallest scales.

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