Lawrence Krauss The Greatest Story Ever Told So Far

The Magic of RealityA Universe from NothingEarthThe Greatest Story Ever ToldFear of PhysicsUntil the End of TimeBeyond Star TrekUnravelling StarlightSomething Deeply HiddenMapping the HeavensThe Lightness of BeingNot a Scientist: How Politicians Mistake, Misrepresent, and Utterly Mangle ScienceThe Physics of Star WarsSeven Brief Lessons on PhysicsWelcome to the UniverseWhy Darwin MattersScience and Cooking: Physics Meets Food, From Homemade to Haute CuisineModern Classical PhysicsHiding in the MirrorIntimacy and SolitudeDark Matter and Dark EnergyIs God a Mathematician?Black Hole Blues and Other Songs from Outer SpaceServe No MasterSkepticBrilliant BlundersThe Greatest Story Ever ToldSo FarThe Husband ListThe Physics of Star TrekJust Six NumbersThe Greatest Story Ever Told--So FarThe Greatest Story Never ToldThe Big PictureThe Spinning MagnetThe Mystery of ExistenceQuantum Man: Richard Feynman's Life in Science (Great Discoveries)AtomAtomQuintessenceThe Greatest Story Ever Told--So Far

The Magic of Reality

"Explore the mystical power of the Force using quantum mechanics, find out how

much energy it would take for the Death Star or Starkiller Base to destroy a planet, and discover how we can potentially create our very own lightsabers. Explore the physics behind the world of Star Wars, with engaging topics and accessible information that shows how we're closer than ever before to creating technology from the galaxy far, far away--perfect for every Star Wars fan!"--

A Universe from Nothing

The best-selling author of The God Delusion and the artist of such award-winning graphic novels as Wizard and Glass address key scientific questions previously explained by rich mythologies, from the evolution of the first humans and the life cycle of stars to the principles of a rainbow and the origins of the universe. 150,000 first printing.

Earth

We all make mistakes. Nobody is perfect. And that includes five of the greatest scientists in history -- Charles Darwin, William Thomson (Lord Kelvin), Linus Pauling, Fred Hoyle, Albert Einstein. But the mistakes that these great scientists made helped science to advance. Indeed, as Mario Livio explains in this fascinating book, science thrives on error; it advances when erroneous ideas are disproven. All

five scientists were great geniuses and fascinating human beings. Their blunders were part of their genius and part of the scientific process. Livio brilliantly analyses their errors to show where they were wrong and right, but what makes his book so enjoyable to read is Livio's analysis of the psychology of these towering figures. Along the way the reader learns an enormous amount about the evolution of life on earth and in the universe, but from an unusual vantage point -- the mistakes of great scientists rather than the achievements that made them famous.

The Greatest Story Ever Told

Bestselling author and astrophysicist Mario Livio examines the lives and theories of history's greatest mathematicians to ask how—if mathematics is an abstract construction of the human mind—it can so perfectly explain the physical world. Nobel Laureate Eugene Wigner once wondered about "the unreasonable effectiveness of mathematics" in the formulation of the laws of nature. Is God a Mathematician? investigates why mathematics is as powerful as it is. From ancient times to the present, scientists and philosophers have marveled at how such a seemingly abstract discipline could so perfectly explain the natural world. More than that—mathematics has often made predictions, for example, about subatomic particles or cosmic phenomena that were unknown at the time, but later were proven to be true. Is mathematics ultimately invented or discovered? If, as Einstein insisted, mathematics is "a product of human thought that is independent of

experience," how can it so accurately describe and even predict the world around us? Physicist and author Mario Livio brilliantly explores mathematical ideas from Pythagoras to the present day as he shows us how intriguing questions and ingenious answers have led to ever deeper insights into our world. This fascinating book will interest anyone curious about the human mind, the scientific world, and the relationship between them.

Fear of Physics

From award-winning physicist, public intellectual, and the bestselling author of A Universe from Nothing Lawrence Krauss, comes "a masterful blend of history, modern physics, and cosmic perspective that empowers the reader to not only embrace our understanding of the universe, but also revel in what remains to be discovered" (Neil deGrasse Tyson, American Museum of Natural History). In this grand poetic vision of the universe, Lawrence Krauss tells the dramatic story of the discovery of the hidden world that underlies reality—and our place within it. Reality is not what you think or sense—it's weird, wild, and counterintuitive, and its inner workings seem at least as implausible as the idea that something can come from nothing. With his trademark wit and accessible style, Krauss leads us to realms so small that they are invisible to microscopes, to the birth and rebirth of light, and into the natural forces that govern our existence. His unique blend of rigorous research and engaging storytelling invites us into the lives and minds of

remarkable scientists who have helped unravel the unexpected fabric of reality with reasoning rather than superstition and dogma, and to explain how everything we see—and can't see—came about. A passionate advocate for reason, Krauss gives the rationale for the seemingly irrational—and the mysteries and apparent contradictions of quantum physics, and explores what that means for our lives here on Earth—and beyond. At its core, The Greatest Story Ever Told—So Far is about the best of what it means to be human—an epic history of our ultimately purposeless universe that addresses the question, "Why are we here?"

Until the End of Time

All the matter and light we can see in the universe makes up a trivial 5 per cent of everything. The rest is hidden. This could be the biggest puzzle that science has ever faced. Since the 1970s, astronomers have been aware that galaxies have far too little matter in them to account for the way they spin around: they should fly apart, but something concealed holds them together. That 'something' is dark matter – invisible material in five times the quantity of the familiar stuff of stars and planets. By the 1990s we also knew that the expansion of the universe was accelerating. Something, named dark energy, is pushing it to expand faster and faster. Across the universe, this requires enough energy that the equivalent mass would be nearly fourteen times greater than all the visible material in existence. Brian Clegg explains this major conundrum in modern science and looks at how

scientists are beginning to find solutions to it.

Beyond Star Trek

Bestselling author and lifestyle design expert Jonathan Green is finally ready to share the blueprint he used to escape the prison of poverty, debt, and office politics that still hold so many people imprisoned. He's not content with just sharing a few ideas -- instead this traveling renegade is taking aim at every roadblock that keeps people from achieving their goals. From "not enough money" to "lack of connections" to "not enough time" to "I just can't seem to do it", Jon's taking laser aim at all the excuses, and breaking things down into small, simple steps that anyone can take to become wealthier, better connected, more talented, and more free. This is a system designed to smash the chains and give you a better financial outlook and more free time to do what you love. He also covers how other people impact your bottom line -- whether that's in negotiations with potential customers and partners, making friends and family more accepting of your lifestyle, and making time for the things that really matter. --Publisher.

Unravelling Starlight

From Nobel Prize winner Kip Thorne and acclaimed physicist Roger Blandford, a

groundbreaking textbook on twenty-first-century classical physics This first-year, graduate-level text and reference book covers the fundamental concepts and twenty-first-century applications of six major areas of classical physics that every masters- or PhD-level physicist should be exposed to, but often isn't: statistical physics, optics (waves of all sorts), elastodynamics, fluid mechanics, plasma physics, and special and general relativity and cosmology. Growing out of a full-year course that the eminent researchers Kip Thorne and Roger Blandford taught at Caltech for almost three decades, this book is designed to broaden the training of physicists. Its six main topical sections are also designed so they can be used in separate courses, and the book provides an invaluable reference for researchers. Presents all the major fields of classical physics except three prerequisites: classical mechanics, electromagnetism, and elementary thermodynamics Elucidates the interconnections between diverse fields and explains their shared concepts and tools Focuses on fundamental concepts and modern, real-world applications Takes applications from fundamental, experimental, and applied physics; astrophysics and cosmology; geophysics, oceanography, and meteorology; biophysics and chemical physics; engineering and optical science and technology; and information science and technology Emphasizes the quantum roots of classical physics and how to use quantum techniques to elucidate classical concepts or simplify classical calculations Features hundreds of color figures, some five hundred exercises, extensive cross-references, and a detailed index An online illustration package is available to professors

Something Deeply Hidden

What warps when you're traveling at warp speed? What is the difference between a wormhole and a black hole? Are time loops really possible, and can I kill my grandmother before I am born? Anyone who has ever wondered “could this really happen?” will gain useful insights into the Star Trek universe (and, incidentally, the real world of physics) in this charming and accessible guide. Lawrence M. Krauss boldly goes where Star Trek has gone-and beyond. From Newton to Hawking, from Einstein to Feynman, from Kirk to Picard, Krauss leads readers on a voyage to the world of physics as we now know it and as it might one day be.

Mapping the Heavens

Traces the colorful, turbulent life of the Nobel Prize-winning physicist, from the death of his childhood sweetheart during the Manhattan Project to his rise as an icon in the scientific community.

The Lightness of Being

A psychotherapist examines the link between intimacy and solitude, explaining how to move from an enjoyment of being alone to true intimacy and discussing the

need for intimacy, relations between men and women, and male and female attitudes toward intimacy

Not a Scientist: How Politicians Mistake, Misrepresent, and Utterly Mangle Science

The New York Times bestselling tour of the cosmos from 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 Physics of Star Wars

Fear of Physics is a lively, irreverent, and informative look at everything from the physics of boiling water to cutting-edge research at the observable limits of the universe. Rich with anecdotes and accessible examples, it nimbly ranges over the tools and thought behind the world of modern physics, taking the mystery out of what is essentially a very human intellectual endeavor.

Seven Brief Lessons on Physics

The story of matter and the history of the cosmos is explored from the perspective of a single oxygen atom.

Welcome to the Universe

'A great educator as well as a great physicist?' Richard Dawkins In the beginning there was light but more than this, there was gravity. After that, all hell broke loose This is how the story of the greatest intellectual adventure in history should be introduced - how humanity reached its current understanding of the universe, one

that is far removed from the realm of everyday experience. Krauss connects the world we know with the invisible world all around us, which is removed from intuition and direct sensation. He explains our current understanding of nature and the struggle to construct the greatest theoretical edifice ever assembled, the Standard Model of Particle Physics -- and then to understand its implications for our existence. Writing in the critically acclaimed style of A Universe from Nothing, Krauss celebrates the beauty and wonders of the natural world and details our place within it and how this shapes our understanding of it. Krauss makes this story accessible through profiles of the scientists responsible for these advances, and clear explanations of their discoveries. Krauss takes us on a tour of science and the brilliant personalities who shaped it, often against political and religious indoctrination, enduring persecution and ostracism. Krauss creates a captivating blend of research and narrative to invite us into the lives and minds of these figures,creating a landmark work of scientific history.

Why Darwin Matters

In 1976, John Maxwell was excited to receive a book as a gift. The title: The Greatest Story Ever Told. Imagine his shock when he opened it to find all the pages blank-except for a note from the giver that said, "John, your life is before you. Fill these pages with kind acts, good thoughts, and matters of your heart. Write a great story with your life." This was John's invitation to become proactive in writing

his own life story. And it marked him. Now John extends that same offer to you and people you care about. It's time to become intentional about writing your own story of significance. THE GREATEST STORY EVER TOLD is the perfect companion for every milestone: Promotion Graduation Wedding New Year Begin writing your story today.

Science and Cooking: Physics Meets Food, From Homemade to Haute Cuisine

What's the meaning of it all? Or rather: what exactly is 'it'? Here Frank Wilczek, Nobel Prize-winning physicist and legend, examines the very nature of reality itself, showing how almost everything we think we know about 'it' is wrong. The Lightness of Being is an engaging tour de force, revealing a universe where matter is the hum of strange music, mass doesn't weigh, and empty space is a multilayered, multicoloured superconductor. Physicists' understanding of the essential nature of reality changed radically over the past quarter century. And Frank Wilczek has played a lead role in establishing the new paradigms. Transcending the clash and mismatch of older ideas about what matter and space is, Wilczek presents some brilliant and clear syntheses. Extraordinarily readable and authoritative, The Lightness of Being is the first book to unwrap these exciting new ideas for the general public. It explores their implications for basic questions

about space, mass, energy, and the longed-for possibility of a fully unified theory of Nature. Pointing to new directions where great discoveries in fundamental physics are likely, and providing a visionary context for the experiments in CERN, he envisions a new Golden Age in physics.

Modern Classical Physics

The New York Times bestseller from the author of The Order of Time and Reality Is Not What It Seems “One of the year’s most entrancing books about science.”—The Wall Street Journal “Clear, eleganta whirlwind tour of some of the biggest ideas in physics.”—The New York Times Book Review This playful, entertaining, and mind-bending introduction to modern physics briskly explains Einstein's general relativity, quantum mechanics, elementary particles, gravity, black holes, the complex architecture of the universe, and the role humans play in this weird and wonderful world. Carlo Rovelli, a renowned theoretical physicist, is a delightfully poetic and philosophical scientific guide. He takes us to the frontiers of our knowledge: to the most minute reaches of the fabric of space, back to the origins of the cosmos, and into the workings of our minds. The book celebrates the joy of discovery. “Here, on the edge of what we know, in contact with the ocean of the unknown, shines the mystery and the beauty of the world,” Rovelli writes. “And it’s breathtaking.”

Hiding in the Mirror

Based on the family from the bestselling Love in a Nutshell, the story of an heiress longing to marry for love or not at all From The New York Times bestselling writing duo Janet Evanovich and Dorien Kelly, comes the story of a young woman's search for true love. Caroline Maxwell would like nothing more than to join her brother, Eddie, and his friend, Jack Culhane, on their adventures. While Jack and Eddie are off seeing the world, buying up businesses and building wildly successful careers, Caroline's stuck at home frightening off the men her mother hopes will ask for her hand in marriage. When her mother sets her sights on the questionable Lord Bremerton as a possible suitor, Caroline struggles with her instincts and the true nature of her heart. She longs for adventure, passion, love, and most of all . . . Jack Culhane, an unconventional Irish-American bachelor with new money and no title. A completely unacceptable suitor in the eyes of Caroline's mother. But Caroline's dark hair, brilliant eyes and quick wit have Jack understanding just why it is people fall in love and get married. Set in New York City in 1894, The Husband List is an American gilded age romantic mystery. It evokes memories of the lavish lifestyles and social expectations of the Vanderbilts and Rockefellers—a time when new money from the Americas married Old World social prestige and privilege. Dresses by Worth, transcontinental ocean voyages, lavish parties, a little intrigue, and a lot of romance await in, The Husband List.

Intimacy and Solitude

Will the universe continue to expand forever, reverse its expansion and begin to contract, or reach a delicately poised state where it simply persists forever? The answer depends on the amount and properties of matter in the universe, and that has given rise to one of the great paradoxes of modern cosmology; there is too little visible matter to account for the behaviour we can see. Over 90 percent of the universe consists of 'missing mass' or 'dark matter' -what Lawrence Krauss, in his classic book, termed "the fifth essence".In this new edition of The Fifth Essence, retitled Quintessence after the now widely accepted term for dark matter, Krauss shows how the dark matter problem is now connected with two of the hottest areas in recent cosmology- the fate of the universe and the "cosmological constant." With a new introduction, epilogue and chapter updates, Krauss updates his classic and shares one of the most stunning discoveries of recent years- an antigravity force that explains recent observations of a permanently expanding universe.

Dark Matter and Dark Energy

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 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.

Is God a Mathematician?

From the world-renowned physicist and best-selling author of The Elegant Universe comes this captivating exploration of deep time and humanity's search for purpose. Until the End of Time is Brian Greene's breathtaking new exploration of the cosmos and our quest to understand it. Greene takes us on a journey across time, from our most refined understanding of the universe's beginning, to the closest science can take us to the very end. He explores how life and mind emerged from the initial chaos, and how our minds, in coming to understand their own impermanence, seek in different ways to give meaning to experience: in narrative, myth, religion, creative expression, science, the quest for truth, and our longing for the eternal. Through a series of nested stories that explain distinct but interwoven layers of reality--from quantum mechanics to consciousness to black holes--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 of where we are headed. With this grand tour of the universe, beginning to end, Brian Greene allows us all to grasp and appreciate our fleeting but utterly exquisite moment in the cosmos.

Black Hole Blues and Other Songs from Outer Space

Internationally renowned, award-winning theoretical physicist, New York Times bestselling author of A Universe from Nothing, and passionate advocate for reason, Lawrence Krauss tells the dramatic story of the discovery of the hidden world of

reality—a grand poetic vision of nature—and how we find our place within it. In the beginning there was light. But more than this, there was gravity. After that, all hell broke loose… In A Universe from Nothing, Krauss revealed how our entire universe could arise from nothing. Now, he reveals what that something—reality—is. And, reality is not what we think or sense—it's weird, wild, and counterintuitive; it's hidden beneath everyday experience; and its inner workings seem even stranger than the idea that something can come from nothing. In a landmark, unprecedented work of scientific history, Krauss leads us to the furthest reaches of space and time, to scales so small they are invisible to microscopes, to the birth and rebirth of light, and into the natural forces that govern our existence. His unique blend of rigorous research and engaging storytelling invites us into the lives and minds of the remarkable, creative scientists who have helped to unravel the unexpected fabric of reality—with reason rather than superstition and dogma. Krauss has himself been an active participant in this effort, and he knows many of them well. The Greatest Story challenges us to re-envision ourselves and our place within the universe, as it appears that "God" does play dice with the universe. In the incisive style of his scintillating essays for The New Yorker, Krauss celebrates the greatest intellectual adventure ever undertaken—to understand why we are here in a universe where fact is stranger than fiction.

Serve No Master

This compelling study of the origins of all that exists, including explanations of the entire material world, traces the responses of philosophers and scientists to the most elemental and haunting question of all: why is anything here—or anything anywhere? Why is there something rather than nothing? Why not nothing? It includes the thoughts of dozens of luminaries from Plato and Aristotle to Aquinas and Leibniz to modern thinkers such as physicists Stephen Hawking and Steven Weinberg, philosophers Robert Nozick and Derek Parfit, philosophers of religion Alvin Plantinga and Richard Swinburne, and the Dalai Lama. The first accessible volume to cover a wide range of possible reasons for the existence of all reality, from over 50 renowned thinkers, including Plato, Aristotle, Aquinas, Descartes, Leibniz, Hume, Bertrand Russell, Stephen Hawking, Steven Weinberg, Robert Nozick, Derek Parfit, Alvin Plantinga, Richard Swinburne, John Polkinghorne, Paul Davies, and the Dalai Lama Features insights by scientists, philosophers, and theologians Includes informative and helpful editorial introductions to each section Provides a wealth of suggestions for further reading and research Presents material that is both comprehensive and comprehensible

Skeptic

An eye-opening tour of the political tricks that subvert scientific progress. The Butter-Up and Undercut. The Certain Uncertainty. The Straight-Up Fabrication. Dave Levitan dismantles all of these deceptive arguments, and many more, in this

probing and hilarious examination of the ways our elected officials attack scientific findings that conflict with their political agendas. The next time you hear a politician say, "Well, I'm not a scientist, but…," you'll be ready.

Brilliant Blunders

A creationist-turned-scientist demonstrates the facts of evolution and exposes Intelligent Design's real agenda Science is on the defensive. Half of Americans reject the theory of evolution and "Intelligent Design" campaigns are gaining ground. Classroom by classroom, creationism is overthrowing biology. In Why Darwin Matters, bestselling author Michael Shermer explains how the newest brand of creationism appeals to our predisposition to look for a designer behind life's complexity. Shermer decodes the scientific evidence to show that evolution is not "just a theory" and illustrates how it achieves the design of life through the bottom-up process of natural selection. Shermer, once an evangelical Christian and a creationist, argues that Intelligent Design proponents are invoking a combination of bad science, political antipathy, and flawed theology. He refutes their pseudoscientific arguments and then demonstrates why conservatives and people of faith can and should embrace evolution. He then appraises the evolutionary questions that truly need to be settled, building a powerful argument for science itself. Cutting the politics away from the facts, Why Darwin Matters is an incisive examination of what is at stake in the debate over evolution.

The Greatest Story Ever ToldSo Far

In the bestselling The Physics of Star Trek, the renowned theoretical physicist Lawrence Krauss took readers on an entertaining and eye-opening tour of the Star Trek universe to see how it stacked up against the real universe. Now, responding to requests for more as well as to a number of recent exciting discoveries in physics and astronomy, Krauss takes a provocative look at how the laws of physics relate to notions from our popular culture -- not only Star Trek, but other films, shows, and popular lore -- from Independence Day to Star Wars to The X-Files. What's the difference between a flying saucer and a flying pretzel? Why didn't the aliens in Independence Day have to bother invading Earth to destroy it? What's new with warp drives? What's the most likely scenario for doomsday? Are ESP and telekinesis impossible? What do clairvoyance and time travel have in common? How might quantum mechanics ultimately affect the fate of life in the universe?

The Husband List

The instant New York Times bestseller about humanity's place in the universe—and how we understand it. “Vividimpressive.Splendidly informative.”—The New York Times “Succeeds spectacularly.”—Science “A tour de force.”—Salon Already internationally acclaimed for his elegant, lucid writing on the most challenging

notions in modern physics, Sean Carroll is emerging as one of the greatest humanist thinkers of his generation as he brings his extraordinary intellect to bear not only on Higgs bosons and extra dimensions but now also on our deepest personal questions: Where are we? Who are we? Are our emotions, our beliefs, and our hopes and dreams ultimately meaningless out there in the void? Do human purpose and meaning fit into a scientific worldview? In short chapters filled with intriguing historical anecdotes, personal asides, and rigorous exposition, readers learn the difference between how the world works at the quantum level, the cosmic level, and the human level—and then how each connects to the other. Carroll's presentation of the principles that have guided the scientific revolution from Darwin and Einstein to the origins of life, consciousness, and the universe is dazzlingly unique. Carroll shows how an avalanche of discoveries in the past few hundred years has changed our world and what really matters to us. Our lives are dwarfed like never before by the immensity of space and time, but they are redeemed by our capacity to comprehend it and give it meaning. The Big Picture is an unprecedented scientific worldview, a tour de force that will sit on shelves alongside the works of Stephen Hawking, Carl Sagan, Daniel Dennett, and E. O. Wilson for years to come.

The Physics of Star Trek

Bestselling author and acclaimed physicist Lawrence Krauss offers a paradigm-

shifting view of how everything that exists came to be in the first place. “Where did the universe come from? What was there before it? What will the future bring? And finally, why is there something rather than nothing?” One of the few prominent scientists today to have crossed the chasm between science and popular culture, Krauss describes the staggeringly beautiful experimental observations and mind-bending new theories that demonstrate not only can something arise from nothing, something will always arise from nothing. With a new preface about the significance of the discovery of the Higgs particle, A Universe from Nothing uses Krauss’s characteristic wry humor and wonderfully clear explanations to take us back to the beginning of the beginning, presenting the most recent evidence for how our universe evolved—and the implications for how it’s going to end. Provocative, challenging, and delightfully readable, this is a game-changing look at the most basic underpinning of existence and a powerful antidote to outmoded philosophical, religious, and scientific thinking.

Just Six Numbers

Challenging traditional accounts of the origins of astrophysics, this book presents the first scholarly biography of nineteenth-century English amateur astronomer William Huggins (1824–1910). A pioneer in adapting the spectroscope to new astronomical purposes, William Huggins rose to scientific prominence in London and transformed professional astronomy to become a principal founder of the new

science of astrophysics. The author re-examines his life and career, exploring unpublished notebooks, correspondence and research projects to expose the boldness of this scientific entrepreneur. While Sir William Huggins is the main focus of the book, the involvement of Lady Margaret Lindsay Huggins (1848–1915) in her husband's research is examined, where it may have been previously overlooked or obscured. Written in an engaging style, this book has broad appeal and will be valuable to scientists, students and anyone interested in the history of astronomy.

The Greatest Story Ever Told--So Far

Based on the popular Harvard University and edX course, Science and Cooking explores the scientific basis of why recipes work. The spectacular culinary creations of modern cuisine are the stuff of countless articles and social media feeds. But to a scientist they are also perfect pedagogical explorations into the basic scientific principles of cooking. In Science and Cooking, Harvard professors Michael Brenner, Pia Sörensen, and David Weitz bring the classroom to your kitchen to teach the physics and chemistry underlying every recipe. Why do we knead bread? What determines the temperature at which we cook a steak, or the amount of time our chocolate chip cookies spend in the oven? Science and Cooking answers these questions and more through hands-on experiments and recipes from renowned chefs such as Christina Tosi, Joanne Chang, and Wylie Dufresne, all beautifully illustrated in full color. With engaging introductions from revolutionary

chefs and collaborators Ferran Adria and José Andrés, Science and Cooking will change the way you approach both subjects—in your kitchen and beyond.

The Greatest Story Never Told

The national bestselling author of The Physics of Star Trek returns with an "enthusiastic and entertaining" journey through the science of the cosmos (The Guardian, UK). Taking us on a millennia-spanning journey through the life of a single oxygen atom, physicist and author Lawrence M. Krauss traces the history of the cosmos from the Big Bang to the present—and on into the distant future. With wit and insight, Krauss explicates cutting-edge science and reveals the surprising story of matter: what it is, where it came from, and where it's going. Along the way, this lively and accessible volume inspires wonder at the powers and unlikely events that conspired to create our solar system, our ecosystem, and us. "Lawrence Krauss has Carl Sagan's knack of expanding the imagination and explaining the mysteries of the universe in simple terms." —Stephen Hawking

The Big Picture

A theoretical astrophysicist explores the ideas that transformed our knowledge of the universe over the past century. The cosmos, once understood as a stagnant

place, filled with the ordinary, is now a universe that is expanding at an accelerating pace, propelled by dark energy and structured by dark matter. Priyamvada Natarajan, our guide to these ideas, is someone at the forefront of the research—an astrophysicist who literally creates maps of invisible matter in the universe. She not only explains for a wide audience the science behind these essential ideas but also provides an understanding of how radical scientific theories gain acceptance. The formation and growth of black holes, dark matter halos, the accelerating expansion of the universe, the echo of the big bang, the discovery of exoplanets, and the possibility of other universes—these are some of the puzzling cosmological topics of the early twenty-first century. Natarajan discusses why the acceptance of new ideas about the universe and our place in it has never been linear and always contested even within the scientific community. And she affirms that, shifting and incomplete as science always must be, it offers the best path we have toward making sense of our wondrous, mysterious universe. “Part history, part science, all illuminating. If you want to understand the greatest ideas that shaped our current cosmic cartography, read this book.”—Adam G. Riess, Nobel Laureate in Physics, 2011 “A highly readable, insider’s view of recent discoveries in astronomy with unusual attention to the instruments used and the human drama of the scientists.”—Alan Lightman, author of The Accidental Universe and Einstein's Dream

The Spinning Magnet

DivThe genesis of the universe elegantly explained in a simple theory based on just six numbers by one of the world's most renowned astrophysicists/div

The Mystery of Existence

The authoritative story of the headline-making discovery of gravitational waves—by an eminent theoretical astrophysicist and award-winning writer. From the author of How the Universe Got Its Spots and A Madman Dreams of Turing Machines, the epic story of the scientific campaign to record the soundtrack of our universe. Black holes are dark. That is their essence. When black holes collide, they will do so unilluminated. Yet the black hole collision is an event more powerful than any since the origin of the universe. The profusion of energy will emanate as waves in the shape of spacetime: gravitational waves. No telescope will ever record the event; instead, the only evidence would be the sound of spacetime ringing. In 1916, Einstein predicted the existence of gravitational waves, his top priority after he proposed his theory of curved spacetime. One century later, we are recording the first sounds from space, the soundtrack to accompany astronomy’s silent movie. In Black Hole Blues and Other Songs from Outer Space, Janna Levin recounts the fascinating story of the obsessions, the aspirations, and the trials of the scientists who embarked on an arduous, fifty-year endeavor to capture these elusive waves. An experimental ambition that began as an amusing

thought experiment, a mad idea, became the object of fixation for the original architects—Rai Weiss, Kip Thorne, and Ron Drever. Striving to make the ambition a reality, the original three gradually accumulated an international team of hundreds. As this book was written, two massive instruments of remarkably delicate sensitivity were brought to advanced capability. As the book draws to a close, five decades after the experimental ambition began, the team races to intercept a wisp of a sound with two colossal machines, hoping to succeed in time for the centenary of Einstein's most radical idea. Janna Levin's absorbing account of the surprises, disappointments, achievements, and risks in this unfolding story offers a portrait of modern science that is unlike anything we've seen before. From the Hardcover edition.

Quantum Man: Richard Feynman's Life in Science (Great Discoveries)

Atom

An engrossing history of the science of one of the four fundamental physical forces in the universe, electromagnetism, right up to the latest indications that the poles are soon to reverse and destroy the world's power grids and electronic

communications A cataclysmic planetary phenomenon is gathering force deep within the Earth. The magnetic North Pole will eventually trade places with the South Pole. Satellite evidence suggests to some scientists that the move has already begun, but most still think it won't happen for many decades. All agree that it has happened many times before and will happen again. But this time it will be different. It will be a very bad day for modern civilization. Award-winning science journalist Alanna Mitchell's delightful storytelling introduces enchanting characters from investigations into magnetism in thirteenth-century France to the discovery in the Victorian era that electricity and magnetism emerge from the same force. No one has ever told so eloquently how the Earth itself came to be seen as a magnet, spinning in space with two poles, and that those poles dramatically, catastrophically reverse now and then The recent finding that Earth's magnetic force field is decaying faster than previously thought, raising fears of an imminent pole reversal, ultimately gives The Spinning Magnet a spine-tingling urgency. When the poles switch, a process that takes many years, Earth is unprotected from solar radiation storms that would, among other things, wipe out all electromagnetic technology. No satellites, no Internet, no smartphones--maybe no power grid at all. Alanna Mitchell offers a beautifully crafted narrative history of ideas and science that readers of Stephen Greenblatt and Sam Kean will love.

Atom

An exploration of mankind's fascination with worlds beyond our own-by the bestselling author of The Physics of Star Trek Lawrence Krauss -an international leader in physics and cosmology-examines our long and ardent romance with parallel universes, veiled dimensions, and regions of being that may extend tantalizingly beyond the limits of our perception. Krauss examines popular culture's current embrace (and frequent misunderstanding) of such topics as black holes, life in other dimensions, strings, and some of the more extraordinary new theories that propose the existence of vast extra dimensions alongside our own. BACKCOVER: "An astonishing and brilliantly written work of popular science." -Science a GoGo "A brilliant, thrilling book . . . You'll have so much fun reading that you'll hardly notice you're getting a primer on contemporary physics and cosmology." -Walter Isaacson, author of Benjamin Franklin: An American Life

Quintessence

Collected essays from bestselling author Michael Shermer's celebrated columns in Scientific American For fifteen years, bestselling author Michael Shermer has written a column in Scientific American magazine that synthesizes scientific concepts and theory for a general audience. His trademark combination of deep scientific understanding and entertaining writing style has thrilled his huge and devoted audience for years. Now, in Skeptic, seventy-five of these columns are available together for the first time; a welcome addition for his fans and a

stimulating introduction for new readers.

The Greatest Story Ever Told--So Far

A literary scholar and a planetary scientist look at the Earth as object, viewed from the outside, and as a singular orb that is a challenge to scale and human self-importance.

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION