

Discoveries And Opinions Of Galileo By Galileo Galilei

Two world-renowned scientists present an audacious new vision of the cosmos that “steals the thunder from the Big Bang theory.” —Wall Street 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 could solve the cosmic mystery” (USA Today).

This book provides the first complete, easy to read, up-to-date account of the fascinating discipline of archaeoastronomy, in which the relationship between ancient constructions and the sky is studied in order to gain a better understanding of the ideas of the architects of the past and of their religious and symbolic worlds. The book is divided into three sections, the first of which explores the past relations between astronomy and people, power, the afterworld, architecture, and landscape. The fundamentals of archaeoastronomy are then addressed in detail, with coverage of the celestial coordinates; the apparent motion of the Sun, Moon, stars, and planets; observation of celestial bodies at the horizon; the use of astronomical software in archaeoastronomy; and current methods for making and analyzing measurements. The final section reviews what archaeoastronomy can now tell us about the nature and purpose of such sites and structures as Stonehenge, the Pyramids of Giza, Chichen Itza, the Campus Martius, and the Valley of the Temples of Agrigento. In addition, a set of exercises is provided that can be performed using non-commercial free software, e.g., Google Earth or Stellarium, and will equip readers to conduct their own research. Readers will find the book an ideal introduction to what has become a wide-ranging multidisciplinary science.

Galileo’s Dialogue Concerning the Two Chief World Systems, published in Florence in 1632, was the most proximate cause of his being brought to trial before the Inquisition. Using the dialogue form, a genre common in classical philosophical works, Galileo masterfully demonstrates the truth of the Copernican system over the Ptolemaic one, proving, for the first time, that the earth revolves around the sun. Its influence is incalculable. The Dialogue is not only one of the most important scientific treatises ever written, but a work of supreme clarity and accessibility, remaining as readable now as when it was first published. This edition uses the definitive text established by the University of California Press, in Stillman Drake’s translation, and includes a Foreword by Albert Einstein and a new Introduction by J. L. Heilbron.

Discoveries and Opinions of Galileo [sound Recording]

Discoveries and opinions of Galileo

Discoveries and opinions of Galileo, tr

including The starry messenger (1610), Letters on sunspots (1613), Letter to the Grand Duchess Christina (1615)...

The Crime of Galileo

Cosmos

www.delphiclassics.com

This Student Edition of Brecht's classic dramatisation of the conflict between free enquiry and official ideology features an extensive introduction and commentary that includes a plot summary, discussion of the context, themes, characters, style and language as well as questions for further study and notes on words and phrases in the text. It is the perfect edition for students of theatre and literature
Along with Mother Courage, the character of Galileo is one of Brecht's greatest creations, immensely live, human and complex. Unable to resist his appetite for scientific investigation, Galileo's heretical discoveries about the solar system bring him to the attention of the Inquisition. He is scared into publicly abjuring his theories but, despite his self-contempt, goes on working in private, eventually helping to smuggle his writings out of the country. As an examination of the problems that face not only the scientist but also the whole spirit of free inquiry when brought into conflict with the requirements of government or official ideology, Life of Galileo has few equals. Written in exile in 1937-9 and first performed in Zurich in 1943, Galileo was first staged in English in 1947 by Joseph Losey in a version jointly prepared by Brecht and Charles Laughton, who played the title role. Printed here is the complete translation by John Willett.

Uses a dialog between three friends to discuss Galileo's theories of buoyancy and the methods he used to reach those conclusions

Including The Starry Messenger (1610), Letter to the Grand Duchess Christina (1615), and Excerpts from Letters on Sunspots (1613), The Assayer (1623)

Essays on Galileo and the History and Philosophy of Science

Galileo and the Magic Numbers

Including The Starry Messenger (1610); Letter to the Grnad Duchesse Christina (1815); and Excerpts from Letters on Sunspots (1613); The Assayer (1623)

Life Of Galileo

Dialogue Concerning the Two Chief World Systems

The definitive history of humanity's search to find its place within the universe. North charts the history of astronomy and cosmology from the Paleolithic period to the present day.

In a startling reinterpretation of the evidence, Stillman Drake advances the hypothesis that Galileo's trial and condemnation by the Inquisition was caused not by his defiance of the Church, but by the hostility of contemporary philosophers. Galileo's own beautifully lucid arguments are used to show how his scientific method was utterly divorced from the Aristotelian approach to physics in that it was based on a search not for causes but for laws. Galileo's method was of overwhelming significance for the development of modern physics, and led to a final parting of the ways between science and philosophy. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

This 3 volume collection includes 80 of the 130 papers published by Drake, most on Galileo but some on medieval and early modern science in general (principally mechanics). An essential supplement to Drake's translations and other books.

Galileo in Rome

Cause, Experiment, and Science

Discoveries and Opinions of Galilei

Archaeoastronomy

Galileo's Error

An Illustrated History of Astronomy and Cosmology

Sixteenth century Italy produced a genius who marked the world with his studies and hypotheses about mathematical, physical and astronomical truths. His father, musician Vincenzo Galilei said, “Truth is not found behind a man’s reputation. Truth appears only when the answers to questions are searched out by a free mind. This is not the easy path in life but it is the most rewarding.” Galileo challenged divine law and the physics of Aristotle, and questioned everything in search of truths. And it was through this quest for truth that he was able to establish a structure for modern science.

A biography of the Italian scientist, concentrating on his prosecution for urging belief in revolutionary astronomical discoveries

As to the first, the last discoveries of Saturn to be tricorporeall, and of the mutations of Figure in Venus, like to those that are seen in the Moon, together with the Consequents depending thereupon, have not so much occasioned the demur, as the investigation of the times of the Conversions of each of the Four Medicean Planets about Jupiter, which I lighted upon in April the year past, 1611, at my being in Rome; where, in the end, I ascertained my selfe, that the first and neerest to Jupiter, moved about 8 gr. & 29 m. of its Sphere in an heure, makinge its whole revolution in one naturall day, and 18 hours, and almost an halfe. The second moves in its Orbe 14 gr. 13 min. or very neer, in an hour, and its compleat conversion is consummate in 3 dayes, 13 hours, and one third, or thereabouts. The third passeth in an hour, 2 gr. 6 min. little more or less of its Circle, and measures it all in 7 dayes, 4 hours, or very neer. The fourth, and more remote than the rest, goes in one heure, 0 gr 54 min. and almost an halfe of its Sphere, and finisheth it all in 16 dayes, and very neer 18 hours. But because the excessive velocity of their returns or restitutions, requires a most scrupulous precisenesse to calculate their places, in times past and future, especially if the time be for many Moneths or Years; I am therefore forced, with other Observations, and more exact than the former, and in times more remote from one another, to correct the Tables of such Motions, and limit them even to the shortest moment: for such exactnesse my first Observations suffice not; not only in regard of the short intervals of Time, but because I had not as then found out a way to measure the distances between the said Planets by any Instrument: I Observed such Intervals with simple relation to the Diameter of the Body of Jupiter; taken, as we have said, by the eye, the which, though they admit not errors of above a Minute, yet they suffice not for the determination of the exact greatness of the Spheres of those Stars. But now that I have hit upon a way of taking such measures without failing, scarce in a very few Seconds, I will continue the observation to the very occultation of JUPITER, which shall serve to bring us to the perfect knowledge of the Motions, and Magnitudes of the Orbes of the said Planets, together also with some other consequences thence arising. I adde to these things the observation of some obscure Spots, which are discovered in the Solar Body, which changing, position in that, propounds to our consideration a great argument either that the Sun revolves in it selfe, or that perhaps other Starrs, in like manner as Venus and Mercury, revolve about it, invisible in other times, by reason of their small digressions, lesse than that of Mercury, and only visible when they interpose between the Sun and our eye, or else hint the truth of both this and that; the certainty of which things ought not to be contemned, nor omitted.

From X-rays to Quarks

Galileo's Daughter

Galileo: A Very Short Introduction

Galileo's Mistake

Foundations for a New Science of Consciousness

A Galilean Dialogue, Incorporating a New English Translation of Galileo's Bodies that Stay Atop Water, Or Move in it

From a leading philosopher of the mind comes this lucid, provocative argument that offers a radically new picture of human consciousness--panpsychism. Understanding how brains produce consciousness is one of the great scientific challenges of our age. Some philosophers argue that consciousness is something "extra," beyond the physical workings of the brain. Others think that if we persist in our standard scientific methods, our questions about consciousness will eventually be answered. And some even suggest that the mystery is so deep, it will never be solved. Decades have been spent trying to explain consciousness from within our current scientific paradigm, but little progress has been made. Now, Philip Goff offers an exciting alternative that could pave the way forward. Rooted in an analysis of the philosophical underpinnings of modern science and based on the early twentieth-century work of Arthur Eddington and Bertrand Russell, Goff makes the case for panpsychism, a theory which posits that consciousness is not confined to biological entities but is a fundamental feature of all physical matter--from subatomic particles to the human brain. In Galileo's Error, he has provided the first step on a new path to the final theory of human consciousness.

“There was no such thing as the Scientific Revolution, and this is a book about it.” With this provocative and apparently paradoxical claim, Steven Shapin begins his bold, vibrant exploration of the origins of the modern scientific worldview, now updated with a new bibliographic essay featuring the latest scholarship. “An excellent book.”—Anthony Gottlieb, New York Times Book Review “Timely and highly readable. . . . A book which every scientist curious about our predecessors should read.”—Trevor Pinch, New Scientist “Shapin’s account is informed, nuanced, and articulated with clarity. . . . This is not to attack or devalue science but to reveal its richness as the human endeavor that it most surely is. . . . Shapin’s book is an impressive achievement.”—David C. Lindberg, Science “It’s hard to believe that there could be a more accessible, informed or concise account. . . . The Scientific Revolution should be a set text in all the disciplines. And in all the indisciplines, too.”—Adam Phillips, London Review of Books

A Nobel Laureate offers impressions of the development of modern physics, emphasizing complex but less familiar personalities. Offers fascinating scientific background and compelling treatments of topics of current interest. 1980 edition.

Galileo. Discoveries and Opinions

On Sunspots

A New Look at the Epic Confrontation Between Galileo and the Church

Introduction to the Science of Stars and Stones

Story-Lives of Great Musicians

Delphi Collected Works of Galileo Galilei (Illustrated)

Examines the life and struggles of Galileo and discusses his many contributions in such areas as scientific research, physics, and astronomy.

Describes the life and work of the courageous man who changed the way people saw the galaxy, by offering objective evidence that the earth was not the fixed center of the universe.

Galileo’s telescopic discoveries, and especially his observation of sunspots, caused great debate in an age when the heavens were thought to be perfect and unchanging. Christoph Scheiner, a Jesuit mathematician, argued that sunspots were planets or moons crossing in front of the Sun. Galileo, on the other hand, countered that the spots were on or near the surface of the Sun itself, and he supported his position with a series of meticulous observations and mathematical demonstrations that eventually convinced even his rival. On Sunspots collects the correspondence that constituted the public debate, including the first English translation of Scheiner’s two tracts as well as Galileo’s three letters, which have previously appeared only in abridged form. In addition, Albert Van Helden and Eileen Reeves have supplemented the correspondence with lengthy introductions, extensive notes, and a bibliography. The result will become the standard work on the subject, essential for students and historians of astronomy, the telescope, and early modern Catholicism.

Discoveries and Opinions

Discourse on Floating Bodies

Galileo

Giovanni Battista Riccioli and the Science against Copernicus in the Age of Galileo

The Rise and Fall of a Troublesome Genius

Translated with an Introduction and Notes by Stillman Drake

Directing his polemics against the pedantry of his time, Galileo, as his own popularizer, addressed his writings to contemporary laymen. His support of Copernican cosmology, against the Church's strong opposition, his development of a telescope, and his unorthodox opinions as a philosopher of science were the central concerns of his career and the subjects of four of his most important writings. Drake's introductory essay place them in their biographical and historical context.

Setting Aside All Authority is an important account and analysis of seventeenth-century scientific arguments against the Copernican system. Christopher M. Graney challenges the long-standing ideas that opponents of the heliocentric ideas of Copernicus and Galileo were primarily motivated by religion or devotion to an outdated intellectual tradition, and that they were in continual retreat in the face of telescopic discoveries. Graney calls on newly translated works by anti-Copernican writers of the time to demonstrate that science, not religion, played an important, and arguably predominant, role in the opposition to the Copernican system. Anti-Copernicans, building on the work of the Danish astronomer Tycho Brahe, were in fact able to build an increasingly strong scientific case against the heliocentric system at least through the middle of the seventeenth century, several decades after the advent of the telescope. The scientific case reached its apogee, Graney argues, in the 1651 New Almagest of the Italian Jesuit astronomer Giovanni Battista Riccioli, who used detailed telescopic observations of stars to construct a powerful scientific argument against Copernicus. Setting Aside All Authority includes the first English translation of Monsignor Francesco Ingoli's essay to Galileo (disputing the Copernican system on the eve of the Inquisition's condemnation of it in 1616) and excerpts from Riccioli's reports regarding his experiments with falling bodies.

Advances the hypothesis that Galileo's trial and condemnation by the Inquisition was caused not by his defiance of the Church, but by the hostility of contemporary philosophers. Galileo's own beautifully lucid arguments are used to show how his scientific method was utterly divorced from the Aristotelian approach to physics in that it was based on a search not for causes but for laws. Galileo's method was of overwhelming significance for the development of modern physics, and led to a parting of the ways between science and philosophy.

Famous Men of Science

Beyond the Big Bang

Modern Physicists and Their Discoveries

The Scientific Revolution

Endless Universe

Galileo's trial by the Inquisition is one of the most dramatic incidents in the history of science and religion. Today, we tend to see this event in black and white--Galileo all white, the Church all black. Galileo in Rome presents a much more nuanced account of Galileo's relationship with Rome. The book offers a fascinating account of the six trips Galileo made to Rome, from his first visit at age 23, as an unemployed mathematician, to his final fateful journey to face the Inquisition. The authors reveal why the theory that the Earth revolves around the Sun, set forth in Galileo's Dialogue, stirred a hornet's nest of theological issues, and they argue that, despite these issues, the Church might have accepted Copernicus if there had been solid proof. More interesting, they show how Galileo dug his own grave. To get the imprimatur, he brought political pressure to bear on the Roman Censor. He disobeyed a Church order not to teach the heliocentric theory. And he had a character named Simplicio (which in Italian sounds like simpleton) raise the same objections to heliocentrism that the Pope had raised with Galileo. The authors show that throughout the trial, until the final sentence and abjuration, the Church treated Galileo with great deference, and once he was declared guilty commuted his sentence to house arrest. Here then is a unique look at the life of Galileo as well as a strikingly different view of an event that has come to epitomize the Church's supposed antagonism toward science.

A provocative examination of the 1633 trial of Galileo by the Inquisition contends that the Galileo incited the opinions of his prosecutors by arguing against spirituality and that the disagreement was more about the nature of truth than about religious differences. 15,000 first printing.

Inspired by a long fascination with Galileo, and by the remarkable surviving letters of Galileo's daughter, a cloistered nun, Dava Sobel has written a biography unlike any other of the man Albert Einstein called "the father of modern physics-- indeed of modern science altogether." Galileo's Daughter also presents a stunning portrait of a person hitherto lost to history, described by her father as "a woman of exquisite mind, singular goodness, and most tenderly attached to me." Galileo's Daughter dramatically recolors the personality and accomplishment of a mythic figure whose seventeenth-century clash with Catholic doctrine continues to define the schism between science and religion. Moving between Galileo's grand public life and Maria Celeste's sequestered world, Sobel illuminates the Florence of the Medicis and the papal court in Rome during the pivotal era when humanity's perception of its place in the cosmos was about to be overturned. In that same time, while the bubonic plague wreaked its terrible devastation and the Thirty Years' War tipped fortunes across Europe, one man sought to reconcile the Heaven he revered as a good Catholic with the heavens he revealed through his telescope. With all the human drama and scientific adventure that distinguished Dava Sobel's previous book Longitude, Galileo's Daughter is an unforgettable story

Starry Messenger

A Historical Memoir of Science, Faith and Love

Discoveries and Opinions of Galileo Including the Starry Messenger (1610), Letters on Sunspots (1613), Letter to the Grand Duchess Christina (1615) and Exerpts from the Assayer (1623)

Galileo Galilei

And the Science Deniers

Discoveries and Opinions of Galileo. Translated With an Introd. and Notes by Stillman Drake

In this fascinating book, the author traces the careers, ideas, discoveries, and inventions of two renowned scientists, Athanasius Kircher and Galileo Galilei, one a Jesuit, the other a sincere man of faith whose relations with the Jesuits deteriorated badly. The Author documents Kircher's often intuitive work in many areas, including translating the hieroglyphs, developing sundials, and inventing the magic lantern, and explains how Kircher was a forerunner of Darwin in suggesting that animal species evolve. Galileo's work on scales, telescopes, and sun spots is mapped and discussed, and care is taken to place his discoveries within their cultural environment. While Galileo is without doubt the "winner" in the comparison with Kircher, the latter achieved extraordinary insights by unconventional means. For all Galileo's fine work, the author believes that scientists do need to regain the power of dreaming, vindicating Kirchner's view.

Discoveries and Opinions of Galileo Including The Starry Messenger (1610), Letter to the Grand Duchess Christina (1615), and Excerpts from Letters on Sunspots (1613), The Assayer (1623)Anchor

An "intriguing and accessible" (Publishers Weekly) interpretation of the life of Galileo Galilei, one of history's greatest and most fascinating scientists, that sheds new light on his discoveries and how he was challenged by science deniers. "We really need this story now, because we're living through the next chapter of science denial" (Bill McKibben). Galileo's story may be more relevant today than ever before. At present, we face enormous crises—such as minimizing the dangers of climate change—because the science behind these threats is erroneously questioned or ignored. Galileo encountered this problem 400 years ago. His discoveries, based on careful observations and ingenious experiments, contradicted conventional wisdom and the teachings of the church at the time. Consequently, in a blatant assault on freedom of thought, his books were forbidden by church authorities. Astrophysicist and bestselling author Mario Livio draws on his own scientific expertise and uses his "gifts as a great storyteller" (The Washington Post) to provide a "refreshing perspective" (Booklist) into how Galileo reached his bold new conclusions about the cosmos and the laws of nature. A freethinker who followed the evidence wherever it led him, Galileo was one of the most significant figures behind the scientific revolution. He believed that every educated person should know science as well as literature, and insisted on reaching the widest audience possible, publishing his books in Italian rather than Latin. Galileo was put on trial with his life in the balance for refusing to renounce his scientific convictions. He remains a hero and inspiration to scientists and all of those who respect science—which, as Livio reminds us in this "admirably clear and concise" (The Times, London) book, remains threatened everyday.

Discoveries and Opinions of Galileo

Setting Aside All Authority

The Stars of Galileo Galilei and the Universal Knowledge of Athanasius Kircher

Including The Starry Messenger, 1610, Letters on Sunspots, 1613, Letters to the Grand Duchess Christina, 1615, And, Excerpts from The Assayer, 1623. Trans. from the Italian