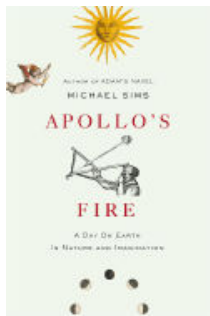


2009 - International Year of Astronomy Bibliography

Galileo Galilei first used a telescope 400 years ago to view the heavens and in 2009 the world is celebrating the history of astronomy by encouraging the discovery of the universe for young and old. The International Year of Astronomy was initiated by the International Astronomical Union (IAU) and UNESCO to help the citizens of the world rediscover their place in the Universe through the day- and night-time sky, and thereby engage a personal sense of wonder and discovery.

The following is a selected list of books, videos, and online resources that will help you learn more about Astronomy. All books and videos are available at the Norfolk Public Library, and online materials may be viewed at home or at any of the public computer stations located in the library.

Books for Amateurs



Apollo's Fire: A Day on Earth in Nature and Imagination by Michael Sims.

Critically acclaimed author Sims sets out to open reader's eyes to the miraculous events that occur in the passing of a single day. Equally lucid and charming, Sims draws on an inexhaustible store of scientific, literary, and historical sources.

Astronomy for the Utterly Confused by Terry Jay Jones.

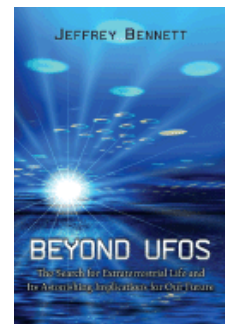
From the Utterly Confused series is an updated look at astronomy including fun facts and new concepts and phenomena.

The Backyard Astronomer's Guide by Terence Dickinson.

Sections on astrophotography, daytime and twilight observing, binocular observing and planetary and deep-sky observing round out this comprehensive guide to personal exploration of the universe.

Beyond UFOs: The Search for Extraterrestrial Life and its Astonishing Implications for our Future by Jeffrey Bennett.

Describes the startling discoveries being made in the very real science of astrobiology, an intriguing new field that blends astronomy, biology, and geology to explore the possibility of life on other planets.

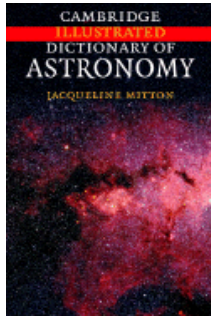


The Black Hole War: My Battle with Stephen Hawking to Make the World Safe for Quantum Mechanics by Leonard Susskind.

A young physicist named Stephen Hawking claimed information is destroyed in a black hole and in doing so put at risk everything we know about the fundamental laws of the universe. Most scientists didn't recognize the importance of Hawkins's claims, but Leonard Susskind and Gerard t'Hooft realized the threat, and responded with a counterattack that changed the course of physics. A true scientific controversy described in an informal style for layman readers.

A Briefer History of Time by Stephen Hawking and Leonard Mlodinow.

An accessible, wry, and lively updated edition of the landmark book, *A Brief History of Time*, which explains quantum physics, astronomy, and the future of the universe.

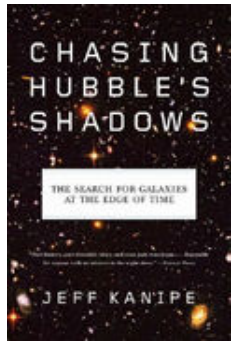


Cambridge Illustrated Dictionary of Astronomy by Jacqueline Mitton.

"This illustrated new dictionary, written by an experienced writer and consultant on astronomy, provides an essential guide to the universe for amateur astronomers of all ages"- jacket.

Chasing Hubble's Shadows: The Search for Galaxies at the Edge of Time by Jeff Kanipe.

With the advent of the Hubbard deep field images, cosmologists have a glimpse into the furthest depths of the history of the Universe, some 12 billion years in the past, that has thus far been achieved, providing new insight into the early formation of galaxies and other cosmological structures.



The Cosmic Connection: How Astronomical Events Impact Life on Earth by Jeff Kanipe.

The author discusses our planet's close calls, how the tilt of the axis caused unanticipated part in our climate, and how actions in our universe created the path of our lives.

The Cosmic Verses: A Rhyming History of the Universe by James Muirden.

Muirden covers the cosmos from prehistoric times to the present in various rhyming formats to help the general reader understand important concepts and events in history and theory of astrophysics.

Cosmos by Carl Sagan.

The best-selling science book ever published in English, *Cosmos* is the magnificent overview of the past, present, and future of science of its time. Brilliant and provocative, it traces scientific methods to their historical roots, blending science and philosophy in a wholly energetic and irresistible way.



Death from the Skies: These are the Ways the World Will End by Philip Plait.

An astronomy primer uses cataclysmic scenarios to explain some of the universe's most interest-piquing phenomena, in a comprehensive guide that also explains how life on Earth would be affected should the depicted events occur.

Decoding the Universe: How the New Science of Information is Explaining Everything in the Cosmos, from Our Brains to Black Holes by Charles Seife.

Following up on his popular explication of the mathematical and scientific history of Zero, he here offers the general reader a tour of the boundaries of contemporary information theory.

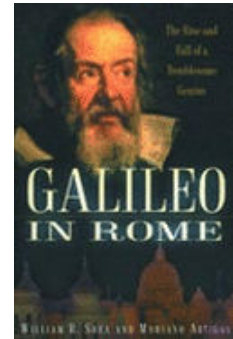
The 50 Best Sights in Astronomy and How to See Them by Fred Schaaf.

This remarkable book introduces you to the fifty best sights in astronomy and tells you exactly how to see them. In no time at all, you will learn how to find and appreciate the Orion

group of constellations; the Summer Triangle; Venus, Jupiter, and Mars; the best meteor showers; man-made satellites; star clusters; novae; variable stars; and more.

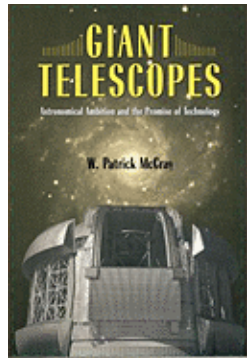
Galileo in Rome: The Rise and Fall of a Troublesome Genius by Mariano Artigas and William R. Shea.

Offers a fascinating and nuanced 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.



The Georgian Star: How William and Caroline Herschel Revolutionized our Understanding of the Cosmos by Michael D. Lemonick.

A tribute to the scientific contributions of William Herschel and his pioneering sister, Caroline, describes their establishment of surveying techniques that are still in use, Caroline's cataloging of nebulae, and William's discovery of infrared radiation.



Giant Telescopes: Astronomical Ambition and the Promise of Technology by W. Patrick McCray.

The politics behind finding our place in the universe.

The Living Cosmos: Our Search for Life in the Universe by Chris Impey.

An expert in the field of astrobiology challenges current assumptions about our existence in the universe while addressing questions concerning the nature of life and the possibility of extraterrestrial life, the future of our planet, and future trends of discovery.

The Grand Tour: A Traveler's Guide to the Solar System by William K. Hartmann.

This update of the 1993 and 1981 editions contains new maps and paintings (including a holographic cover), shaped by recent space explorations, of celestial worlds large and small.

Night Sky Atlas: The Moon, Planets, Stars and Deep Sky Objects by Robin Scagell.

Designed for new owners of small telescopes or binoculars in either hemisphere (north or south), this slim atlas provides a guide to observing stars, planets and deep sky objects, then presents profiles of about 150 of the brightest and most interesting objects in 50 constellations.

Virginia Starwatch by Mike Lynch.

A user-friendly guide to Virginia's night sky designed for beginner and intermediate stargazer's ages twelve and up.

Where did Pluto Go? A Beginner's Guide to Understanding the New Solar System by Paul Sutherland.

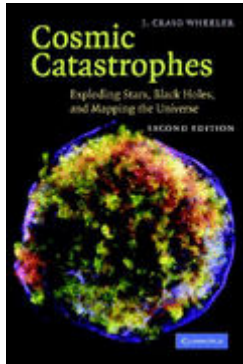
A modern introduction to the solar system incorporates the latest research and technology, providing beginner-level stargazers with a removable turn-the-wheel planisphere and coverage of the 2005 debate about planet definitions.



Scholarly Titles

Cambridge Concise History of Astronomy by Michael Hoskin, ed.

This book covers the history of our study of the cosmos from prehistory to a survey of modern astronomy and astrophysics. It does not attempt to cover everything, but deliberately concentrates on the important themes and topics, including stellar astronomy in the seventeenth and eighteenth centuries.



Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe by J. Craig Wheeler.

From supernovae and gamma-ray bursts to the accelerating Universe, this is an exploration of the intellectual threads that lead to some of the most exciting ideas in modern astrophysics and cosmology.

The Day without Yesterday: Lemaitre Einstein, and the Birth of Modern Cosmology by John Farrell.

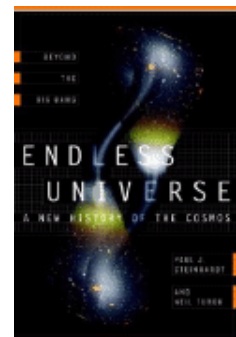
“Covers the modern history of an evolving universe, and how Georges Lemaitre convinced a generation of thinkers to embrace the notion of cosmic expansion and the theory that this expansion could be traced backward to the cosmic origins, a starting point for space and time that Lemaitre called "the day without yesterday"-jacket.

Encyclopedia of the Solar System by Lucy-Ann McFadden, ed.

Now fully updated, this self-contained reference provides a framework for understanding the origin and evolution of the solar system, historical discoveries, and details about planetary bodies and how they interact, and have jumped light years ahead in terms of new information and visual impact.

Endless Universe: Beyond the Big Bang by Paul J. Steinhardt

This book presents a bold new cosmology: Steinhardt and Turok recount remarkable developments in astronomy, particle physics, and superstring theory that together form the basis of their groundbreaking "Cyclic Universe" theory.



Einstein's Jury: The Race to Test Relativity by Jeffrey Crelinsten.

Science writer Crelinsten narrates the story of this relationship between Einstein and European and American astronomical circles, exploring how his theories were debated within the astronomical community and the effect that observational confirmation had on acceptance of Einstein's work.

Epic of Evolution: Seven Ages of the Cosmos by Eric Chaisson.

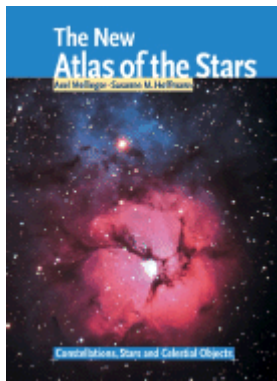
Drawing on recent breakthroughs in astrophysics and biochemistry, Chaisson explores the development of the most microscopic and the most immense aspects of our universe, including the idea that all objects—from quarks and quasars to microbes and minds—are interrelated.

An Introduction to Black Holes, Information and the String Theory Revolution by Leonard Susskind.

Over the last decade the physics of black holes has been revolutionized by developments that grew out of Jacob Bekenstein's realization that black holes have entropy. This revolution has culminated in a remarkable principle called "the holographic principle," which is now a major focus of attention in gravitational research, quantum field theory and elementary particle physics.

Life in the Universe by Joseph A. Angelo, Jr.

Angelo describes how scientists explore this question through space technology and astronomy, as well as the principles of exobiology and how they are being used to guide robot spacecraft in the search for life beyond Earth.



The New Atlas of the Stars: Constellations, Stars and Celestial Objects by Axel Mellinger.

This attractive atlas presents 30 full-page photographs of regions of the sky with clear acetate overlays showing constellations, stars, and celestial objects. Explanatory material describes major stars, galaxies, and deep sky objects in each region, and the history and derivation of the constellations shown.

The New Time Travelers: A Journey to the Frontiers of Physics by David Toomey.

Toomey brings the brilliant minds of Kip Thorne, Carl Sagan, and Steven Hawking to life as they confront temporal paradoxes and questions of free will, probe black holes and time warps, conceive of parallel universes, and imagine a civilization with the power to send signals into the past.

Stargazer: the Life and Times of the Telescope by Fred Watson.

Watson, who is in charge of the Anglo-Australian Observatory at Coonabarabran, covers all four centuries of the telescope's existence, giving the reasons why it was invented in the first place and the confusion it caused once it was invented.

Three Steps to the Universe: From the Sun to Black Holes to the Mystery of Dark Matter by David Garfinkle.

Gravitational physicist David Garfinkle and his brother, science fiction writer Richard Garfinkle, tackle these questions and more in a tour through some of the most complex phenomena in the cosmos and an accessible exploration of how scientists acquire knowledge about the universe through observation, indirect detection, and theory.

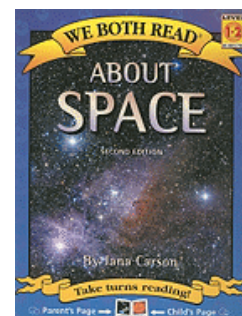
Juvenile and Young Adult Books

About Space by Jana Carson.

This revised edition provides exciting new information and spectacular photographs of planets, moons, stars, and galaxies.

Astronomy by Kristen Lippincott.

From the popular Eyewitness series, this visually rich book is not just for kids.

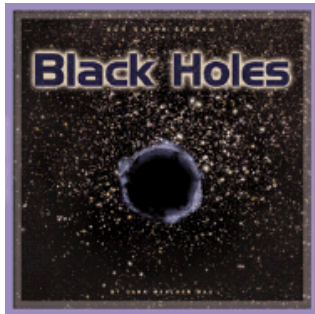


Atlas of the Universe by Mark A. Garlick.

Presents the latest findings about the universe, covering such topics as the solar system and its stars, other galaxies, supernovas, star clusters, nebulas, and black holes, and examines man's effort to explore outer space and find signs of life on other planets.

Big Bang! The Tongue-Tickling Tale of a Speck that Became Spectacular by Carolyn Cinami DeCristofano.

Billions of years ago, everything in the universe was crunched up into a tiny speck that was smaller than the period at the end of this sentence. How did this little speck become the universe we know today? Playful, alliterative verse and clear prose tell the story of the beginning of our universe.



Black Holes by Dana Meachen Rau.

Discusses the history of black holes, the scientific theory of how they are formed, and what they may be able to tell us about the future.

Comets, Stars, the Moon, and Mars: Space Poems and Paintings by Douglas Florian.

From the moon to the stars, Florian's new high-flying compendium features 20 whimsical poems about space.

Copernicus' Secret: How the Scientific Revolution Began by Jack Repcheck.

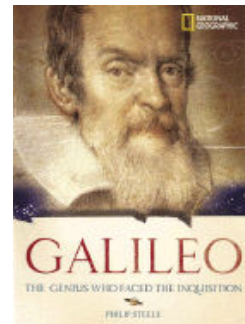
Traces the story of the enigmatic scientist while revealing how he was able to make his pivotal discovery about how the Earth revolves around the sun in spite of limited technology and the obscure belief systems of his contemporaries.

11 Planets: A New View of the Solar System by David A. Aguilar.

Provides an introduction to the planets of the solar system, including the two new dwarf planets, Ceres and Eris.

Galileo: The Genius who Faced the Inquisition by Philip Steele.

Chronicles the life from childhood to the discoveries which prompted his trial for heresy.



Galaxies, Galaxies by Gail Gibbons.

With informative text and clear illustrations, bestselling author and illustrator Gibbons takes young readers on a journey light years away.

Mars and the Search for Life by Elaine Scott.

Presents the latest information about Mars, discussing the growing body of evidence that water and therefore the potential for life was present on Mars at one time in the past.

The Mysterious Universe: Supernovae, Dark Energy, and Black Holes by Ellen Jackson.

This visually rich work explains the search for supernovas and other astronomical phenomenon by two important observatories.

Pluto: From Planet to Dwarf by Elaine Landau.

Describes Pluto compared to the planets previously known; explains how similar objects in space beyond Pluto made scientists decide to reclassify it as a dwarf planet; and discusses its moons and space probes sent to explore it.

Stargazing With Jack Horkheimer: Cosmic Comics for the Skywatcher by Jack Horkheimer.

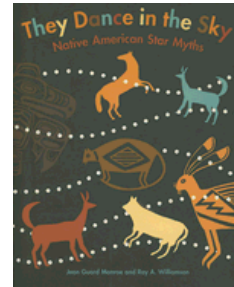
A graphic novel detailing the night sky.

Starry Skies: Questions, Facts, & Riddles about the Universe by Mike Artell.

Answers questions about the universe such as, "How did our solar system get started?" and "What is a black hole?"

They Dance in the Sky: Native American Star Myths compiled by Jean Guard Monroe.

The authors combine factual information on both astronomy and Native American culture with authentic tales and myths about constellations told by many American Indian tribes.



DVDs

The Astronomers, a production of KCET.

A look at the work and worlds of leading scientists and astronomers who are helping to unlock the mysteries of the universe.

Baby Galileo: Discovering the Sky by Baby Einstein Company.

Introduces little ones to a multitude of wonders up above, including the sun and the moon, fluffy clouds, shimmering stars, colorful planets and whirling galaxies.

When We Left Earth: The NASA Missions produced in collaboration with NASA.

Join the heroic men and women who have dared the impossible on some of the greatest adventures ever undertaken - the quest to reach out beyond Earth. Extensive modern and never-before-seen interviews and footage from the NASA archives in celebration of 50 years of space flight.



Databases

Databases are subscription resources that contain reliable, timely, and authoritative online sources of information. Links to these are found on the Library's Webpage at www.npl.lib.va.us under "Databases." Use your Norfolk Public Library card number for access to these resources:

Access Science

Includes over 2,000 biographies of famous scientists. Topics also include astronomy physics.

General OneFile

Search “astronomy” to access full text articles.

Kid’s Infobits

Find space and technology under the math and science icon.

World Book Online

Containing every article from the 22-volume printed set plus thousands more exclusively in partnership with NASA, this database has multimedia maps, videos, and articles.

Online Periodicals

Astronomy Magazine

www.astronomy.com

A comprehensive magazine on astronomy including a link to astronomy for kids.

Astronomy Now Magazine

www.astronomynow.com

UK astronomy magazine.

Astronomy Today

www.astronomytoday.com

Articles, night sky information and forums.

Aviation Week & Space Technology Magazine

<http://www.aviationweek.com/aw/space/?channel=space>

Space, rockets, NASA, and space shuttle news.

Sky & Telescope Magazine

www.skyandtelescope.com

Contains news and other articles about astronomy. Includes blogs, photos and how-to information.

Websites

American Association of Amateur Astronomers

www.astromax.com

News letters, photo gallery, constellations and more.

Astronomical Society of the Pacific

<http://www.astrosociety.org/education.html>

Contains guides to astronomical events

Astronomy for Kids

<http://www.kidsastronomy.com/>

Free astronomy resource from the KidsKnowIt Network.

Hubble Telescope

<http://hubblesite.org/>

The official Hubble Telescope home page.

International Year of Astronomy 2009

<http://www.astronomy2009.org/general/about/>

The global celebration of astronomy including global projects and resources, including free presentations in the form of slide shows and PDF.

Kitt Peak National Observatory

<http://www.noao.edu/>

“The national center for ground-based nighttime astronomy in the United States and operated by the Association of Universities for Research in Astronomy.”

NASA

<http://apod.nasa.gov/apod/archivepix.html>

Information about the National Aeronautic and Space Administration for the public, students, and educators.

Northern Virginia Astronomy Club

www.novac.com

A comprehensive page for amateurs and includes scope swaps.

PBS

<http://www.pbs.org/wgbh/nova/galileo/telescope.html>

“Galileo’s Battle for the Heavens” – details Galileo’s life and role in science.

The Planetary Society

<http://www.planetary.org/home/>

“The world’s largest space-interest group dedicated to inspiring the public with the adventure and mystery of space exploration.”

Royal Astronomical Society

<http://www.ras.org.uk/>

Contains astronomy news and forums in the UK.

Students for the Exploration and Development of Space

<http://www.seds.org/>

“A group dedicated to expanding the role of human exploration and development of space.”

The Webb Society- Deep-sky Observing

www.webbdeepsky.com

Contains other recommended websites, societies, publications, projects and much more.