

The JSCAS Media Library

Your opportunity to advance your astronomy
knowledge

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Johnson Space Center Astronomical Society

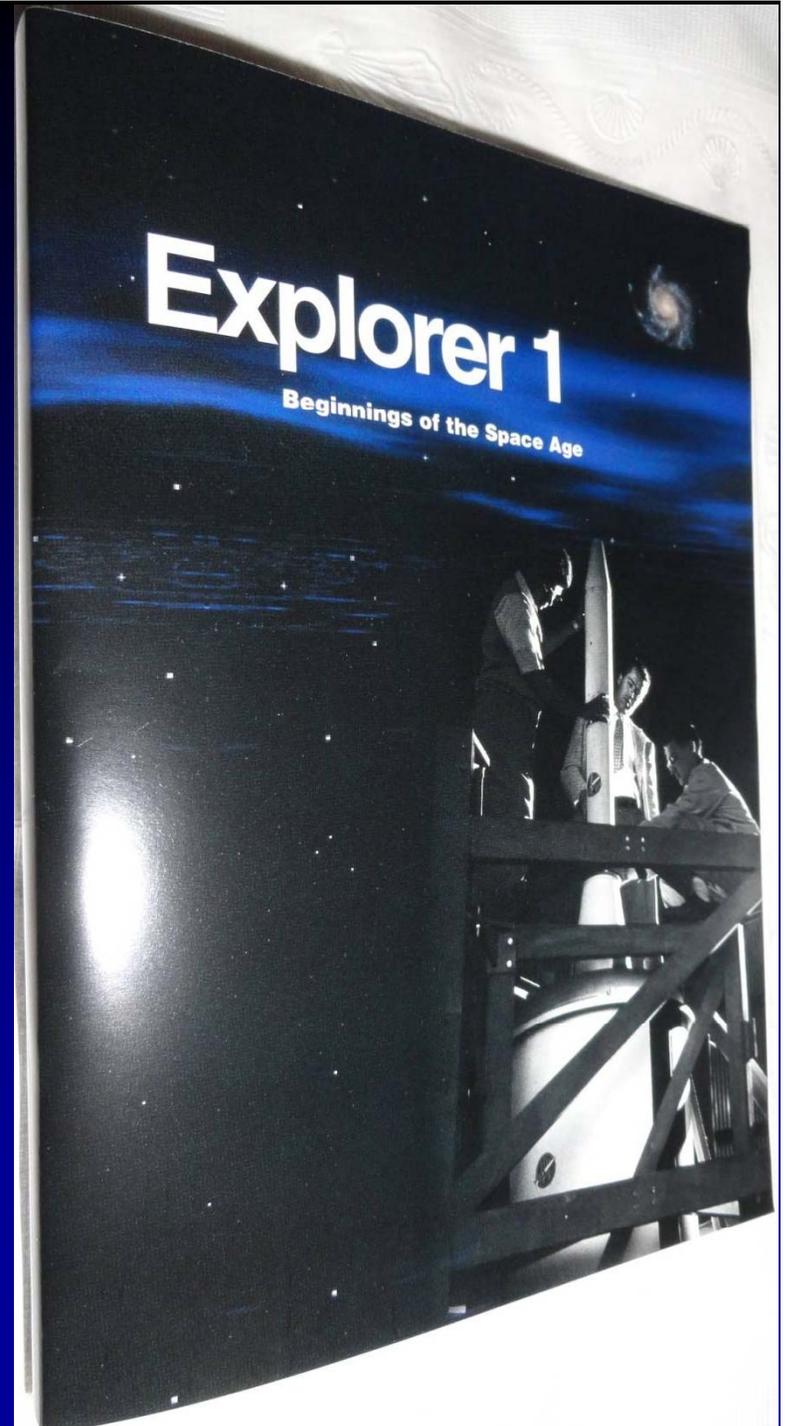


Intro

- JSCAS has long had a Library of books for its members to borrow. It's future is uncertain...
- Through our continued participation in the Night Sky Network and some generous benefactors, we are starting to get a collection of educational materials in different multimedia formats.
- The goal of the JSCAS Media Library is to allow our membership to 'check out' some of the latest high quality materials on our shared interest of astronomy and closely related fields.
- **New additions and contributions are welcomed.**

Explorer 1 – Beginnings of the Space Age - DVD

Produced in high-definition video, the film interweaves rare archival film and photographs, interviews with actual participants and the insights of the authoritative historians of the period. The result is a fascinating glimpse into the days of the Cold War when international politics and then state-of-the-art technology collided, opening up an entirely new frontier for competition and exploration.



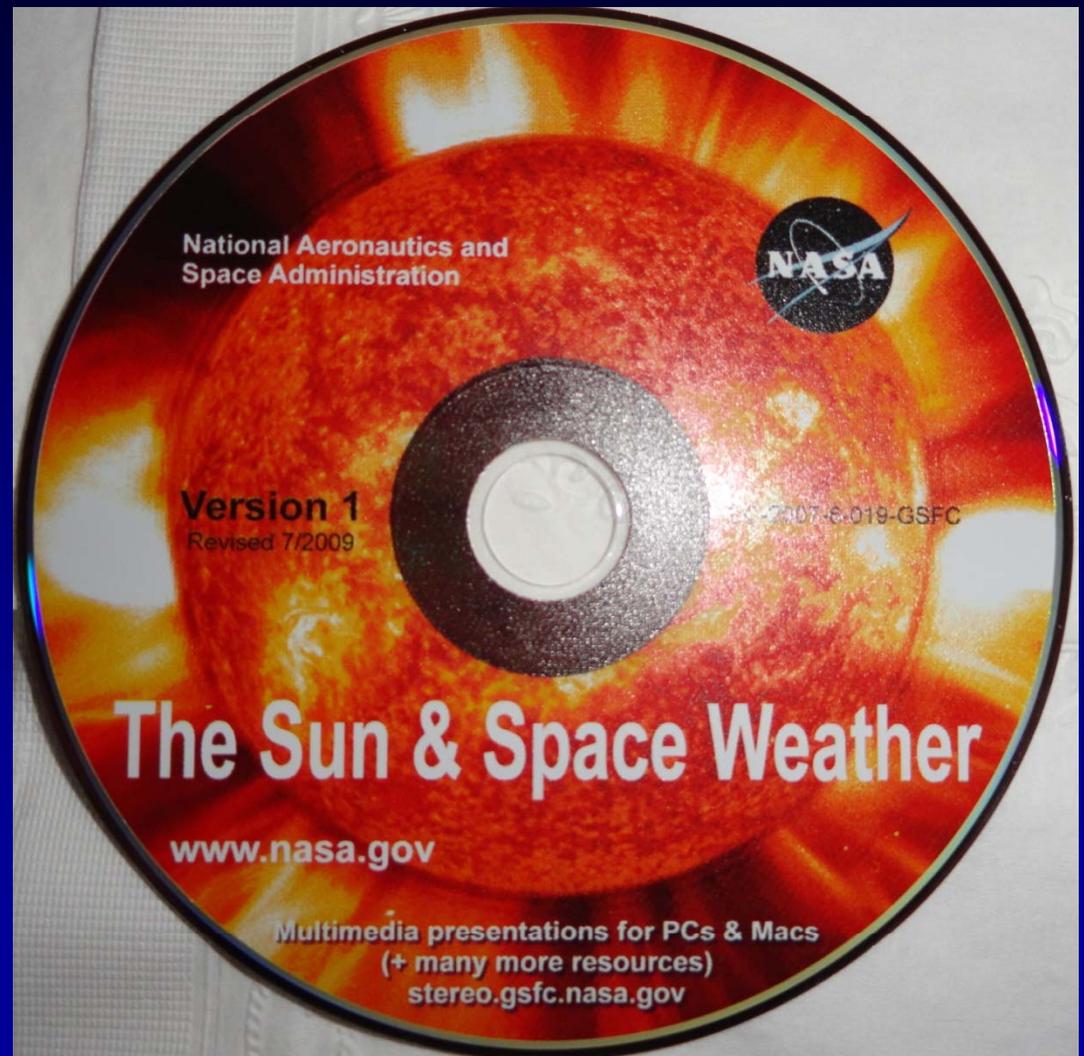
Cosmic Collisions – Computer DVD



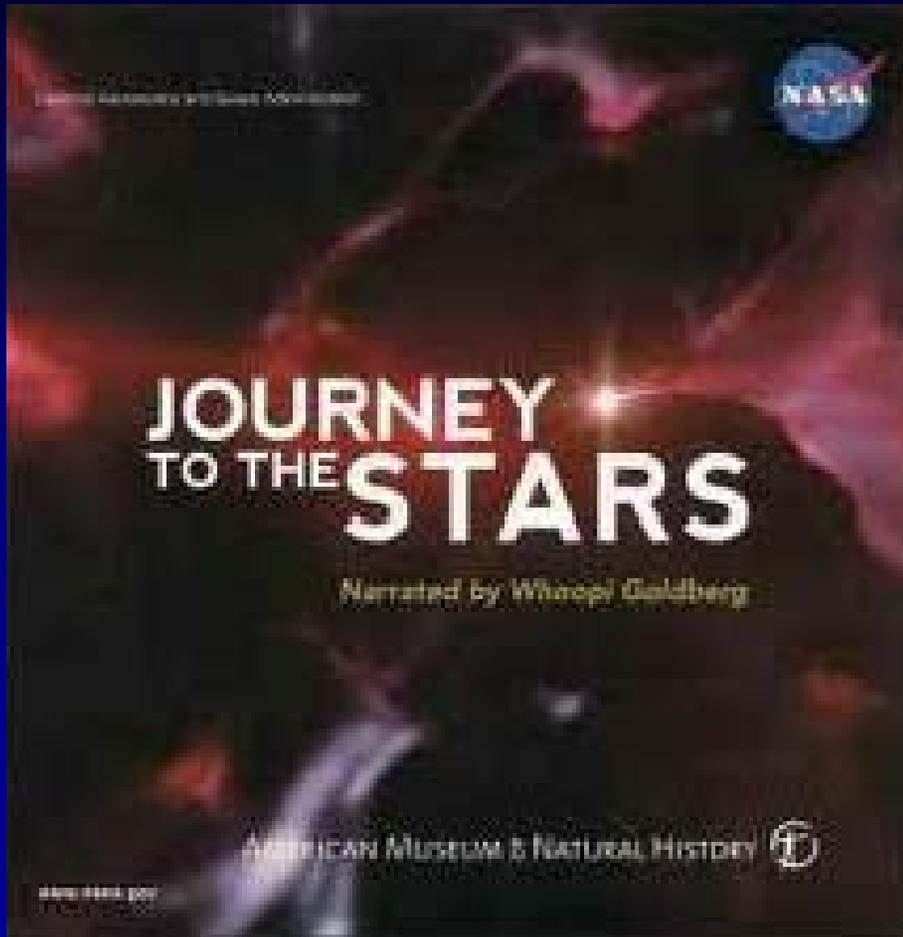
This planetarium show will show the violent face of our Sun, with streams of charged solar particles striking the Earth's magnetic field, and producing the eerie glow of the auroras. Viewers will also see the creation of our Moon when a wandering planetoid struck Earth; the violent meeting of two stars at the edge of the galaxy; and the future collision of our Milky Way galaxy with our closest neighbor, the Andromeda spiral galaxy.

The Sun & Space Weather CD-Rom

An educational outreach
CD-Rom from the STEREO
and SOHO missions.



Journey to the Stars - DVD



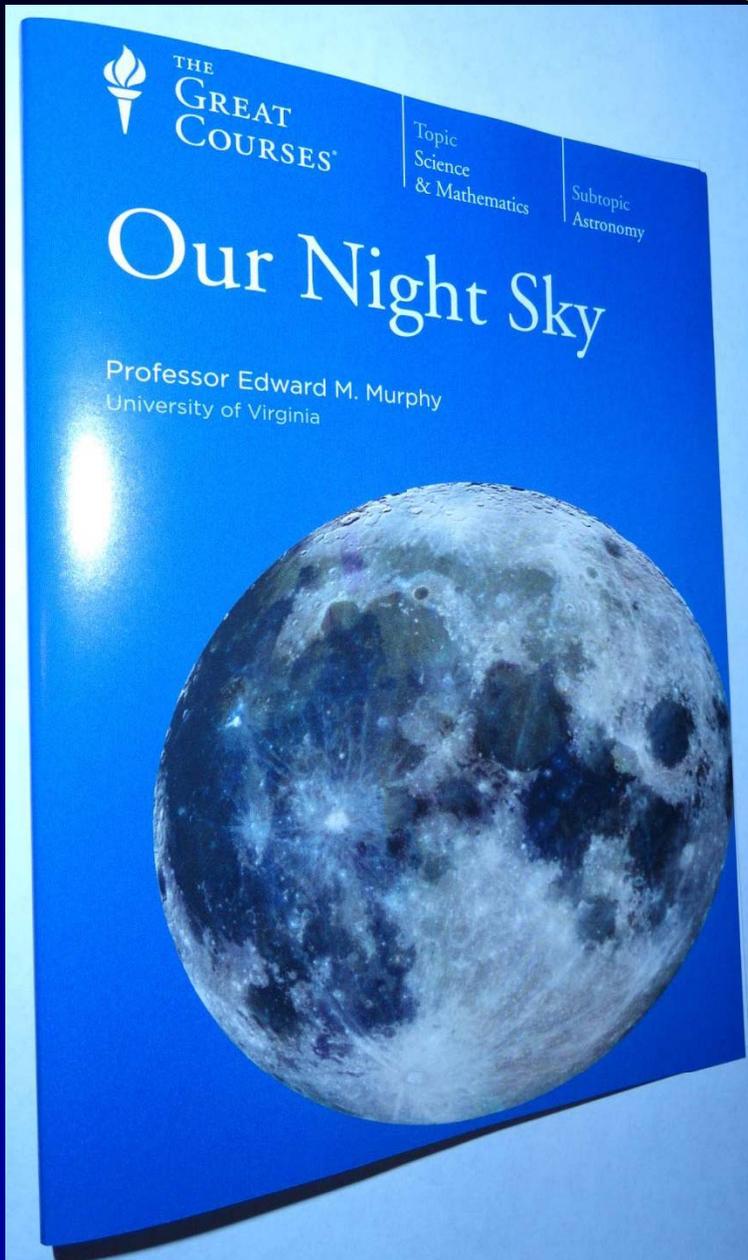
Featuring extraordinary images from telescopes on the ground and in space and stunning, never-before-seen visualizations of physics-based simulations, the dazzling *Journey to the Stars* launches visitors through space and time to experience the life and death of the stars in our night sky, including our own nurturing Sun. Tour familiar stellar formations, explore new celestial mysteries, and discover the fascinating, unfolding story that connects us all to the stars. Those who come along for the journey may never see the night sky in the same way again.

Space Weather: Exploring Sun-Earth Connections - CD-ROM

Space weather is a term that is frequently used to describe the interaction between the Sun and Earth. These interactions can be as benign as a beautiful aurora, or as devastating as an electrical power blackout, the loss of a million-dollar satellite, or even radiation exposure to astronauts and airline flight crews. This CD-Rom answers questions about what space weather is and what it does in space and on Earth. It includes movies, images and a tutorial.



Our Night Sky - DVD

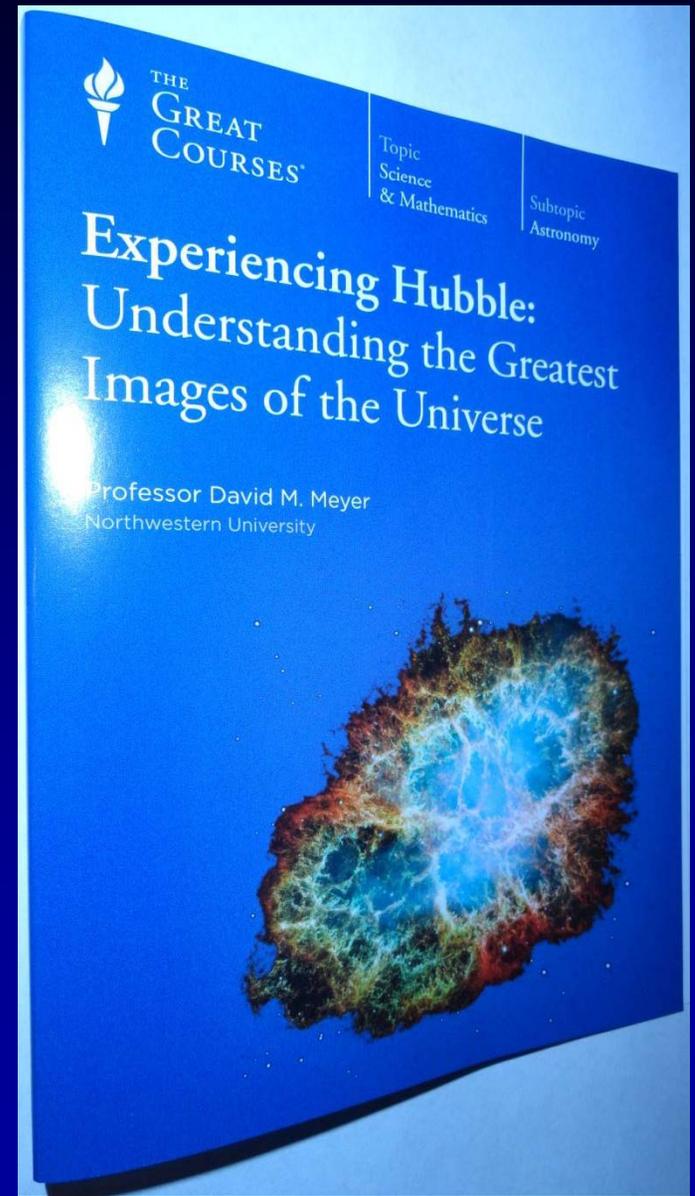


Lectures:

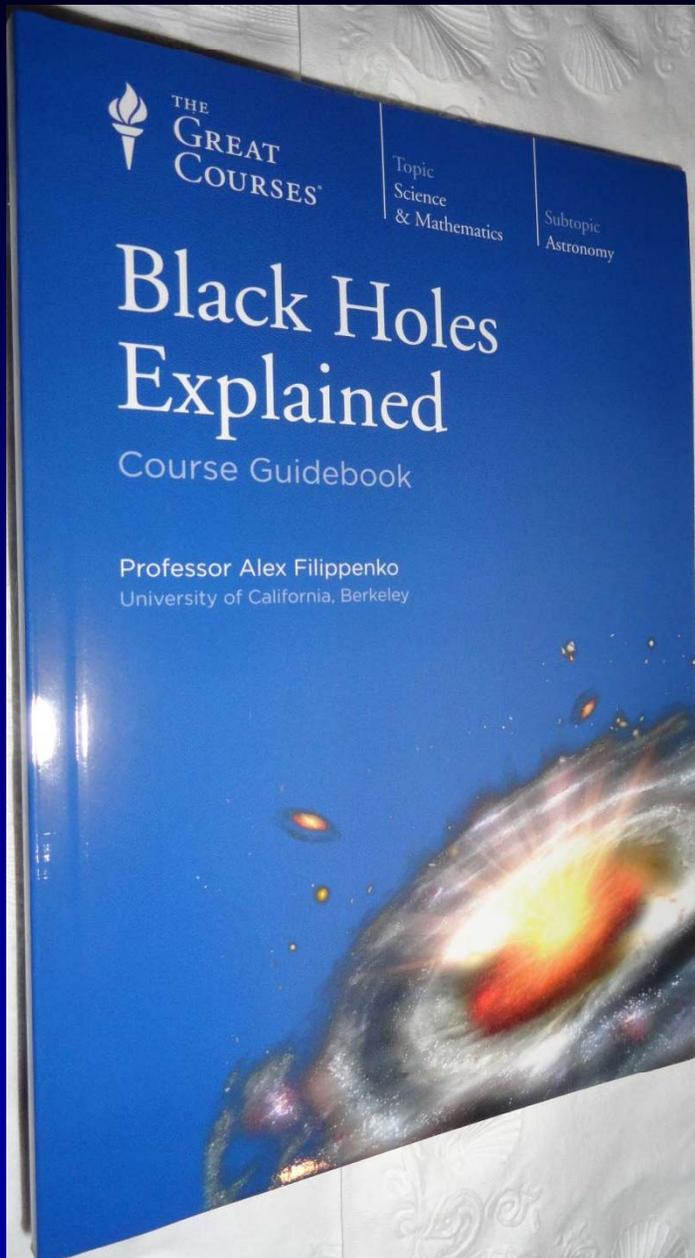
1. The Constellations and Their Stars
2. Seeing and Navigating the Sky
3. Using Binoculars and Backyard Telescopes
4. Observing the Moon and the Sun
5. Observing the Planets with a Telescope
6. Meteor Showers, Comets, Eclipses, and More
7. The Northern Sky and the North Celestial Pole
8. The Fall Sky
9. The Winter Sky
10. The Spring Sky
11. The Summer Sky
12. The Southern Sky and the Milky Way

Experiencing Hubble: Understanding the Greatest Images of the Universe DVD

1. The Rationale for a Space Telescope
2. Comet Shoemaker-Levy 9 and Jupiter
3. The Sagittarius Star Cloud
4. The Star Factory inside the Eagle Nebula
5. The Cat's Eye Nebula—A Stellar Demise
6. The Crab Nebula—A Supernova's Aftermath
7. The Sombrero Galaxy—An Island Universe
8. Hubble's View of Galaxies Near and Far
9. The Antennae Galaxies—A Cosmic Collision
10. Abell 2218—A Massive Gravitational Lens
11. The Hubble Ultra Deep Field
12. Hubble's Legacy and Beyond



Black Holes Explained - DVD



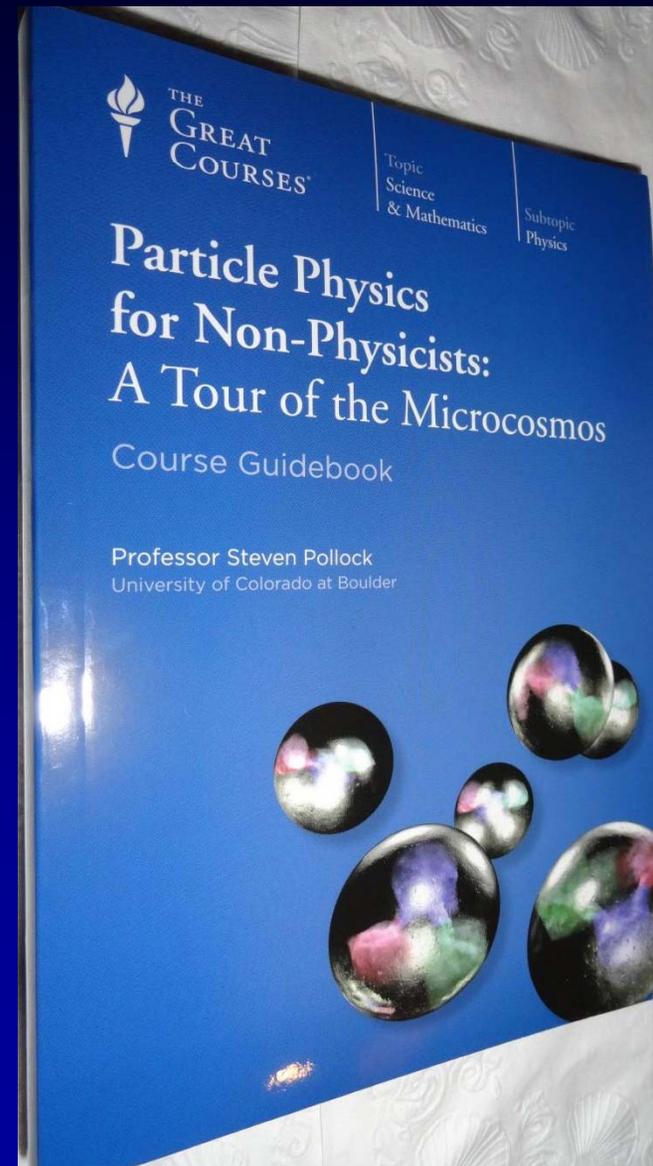
1. A General Introduction to Black Holes
2. The Violent Deaths of Massive Stars
3. Gamma-Ray Bursts - The Birth of Black Holes
4. Searching for Stellar-Mass Black Holes
5. Monster of the Milky Way and Other Galaxies
6. Quasars - Feasting Supermassive Black Holes
7. Gravitational Waves—Ripples in Space-Time
8. The Wildest Ride in the Universe
9. Shortcuts through the Universe and Beyond?
10. Stephen Hawking & Black Hole Evaporation
11. Black Holes and the Holographic Universe
12. Black Holes and the Large Hadron Collider

Particle Physics for Non-Physicists: A Tour of the Microcosmos - DVD

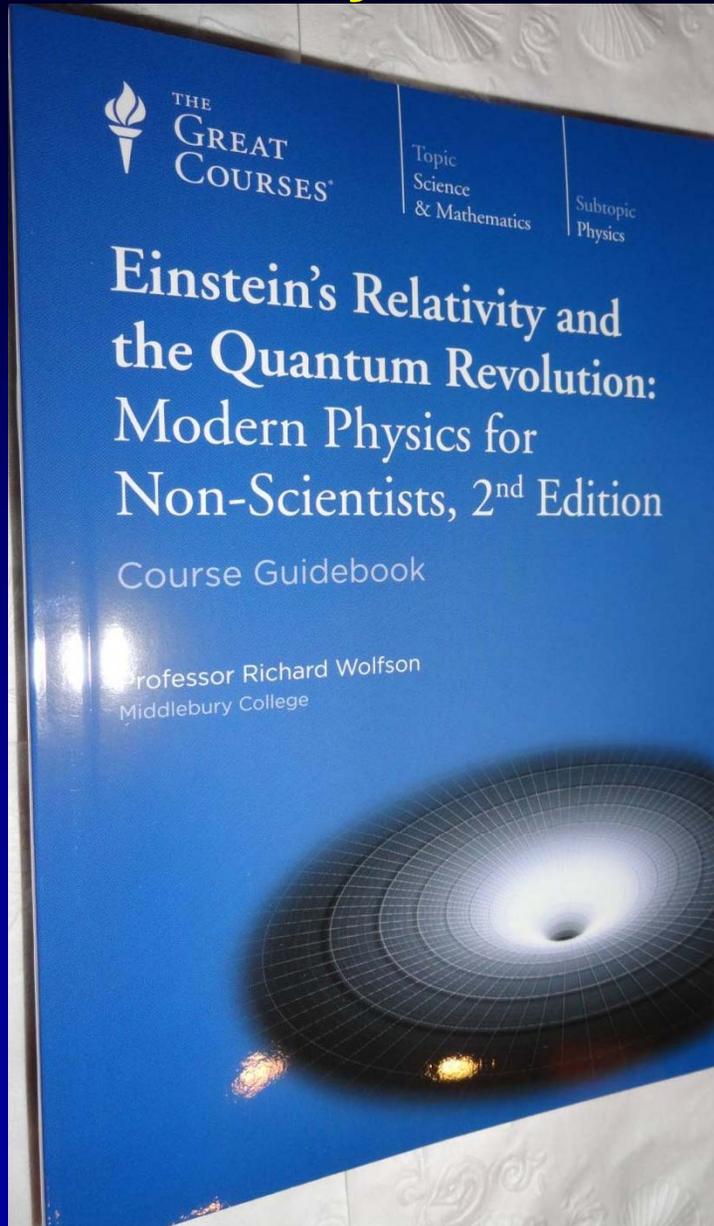
In only 100 years, man has unlocked the secrets of the basic forces of nature. You will become familiar with the fundamental particles that make up all matter, from the tiniest microbe to the sun and stars. You will also learn the "rules of the game"—the forces the particles feel and the ways they interact—that underlie the workings of the universe.

This course is designed to be enriching for everyone, regardless of scientific background or mathematical ability. Virtually all you will need to enjoy and benefit from it are curiosity, common sense, and "an open mind for the occasional quantum weirdness."

24 lectures



Einstein's Relativity and the Quantum Revolution: Modern Physics for Non-Scientists, 2nd Edition DVD



A brief overview of theories of physical reality starting with Aristotle and culminating in Newtonian or "classical" physics and shows the logic that led to Einstein's theory of special relativity.

Next is Einstein's theory of general relativity and its interpretation of gravitation in terms of the curvature of space & time. Inquiry into matter at the atomic and subatomic scales led to quandaries that are resolved - or at least clarified - by quantum mechanics, a vision of physical reality that is at odds with our experience.

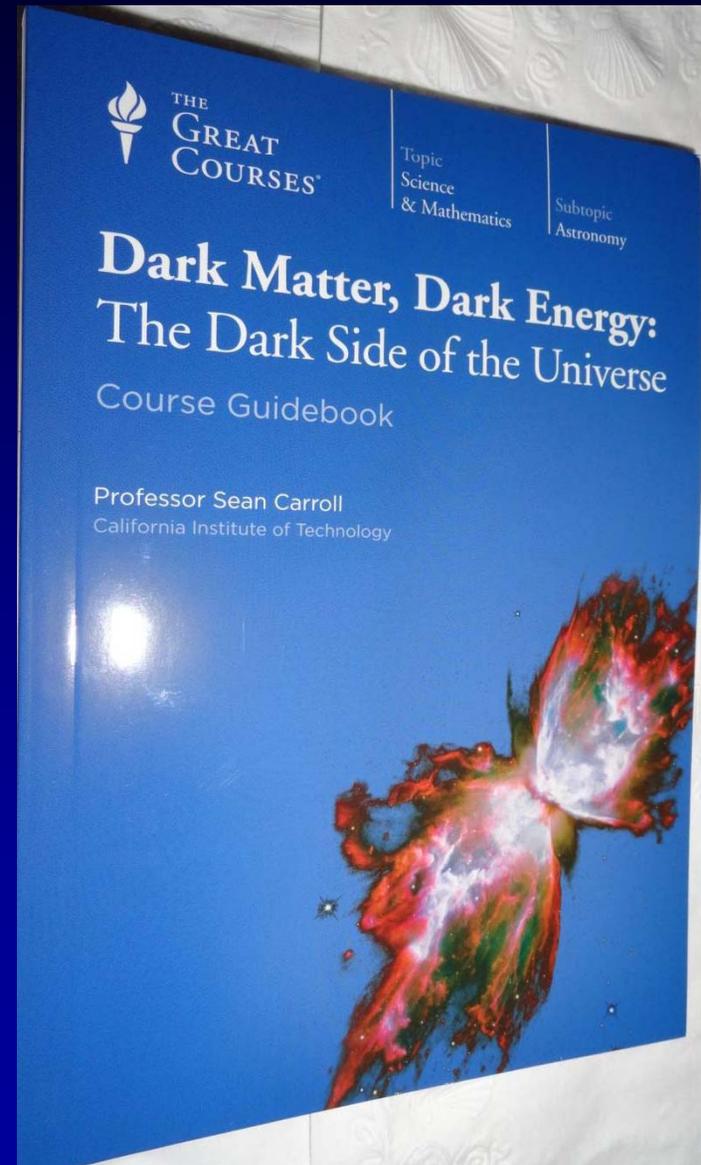
Bringing relativity and quantum mechanics into view leads to hypotheses about the origin, development, and possible futures of the entire universe, and the possibility that physics can produce a "theory of everything" to account for all aspects of the physical world.

24 Lectures

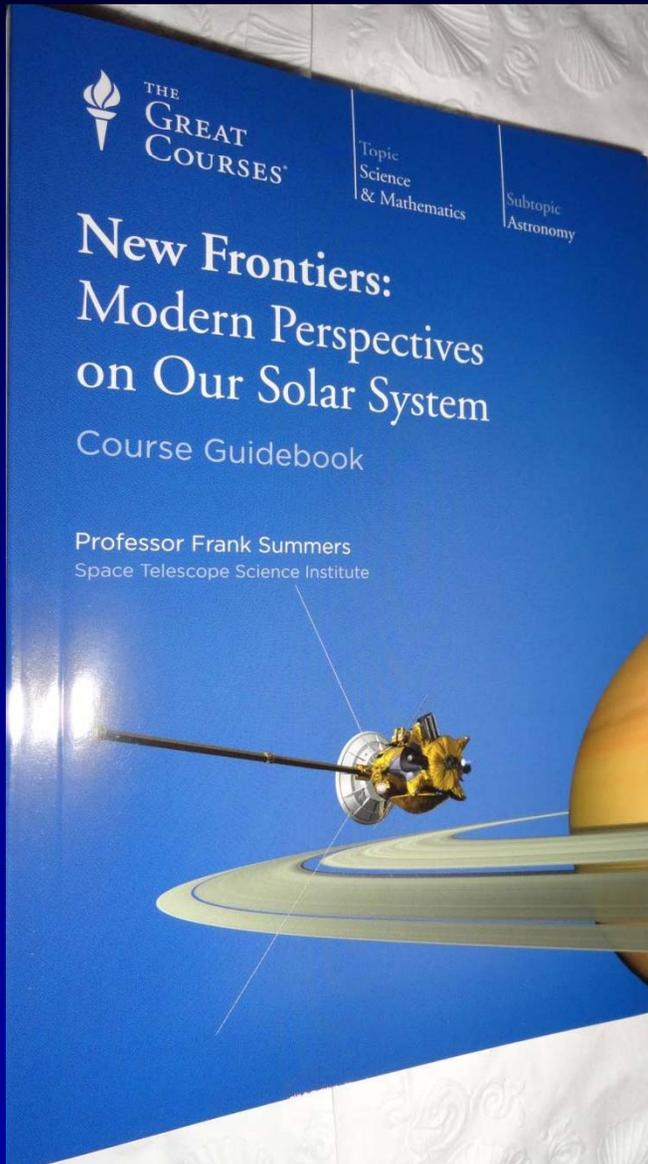
Dark Matter, Dark Energy: The Dark Side of the Universe - DVD

In recent years, scientists have discovered that 95% of the contents of the cosmos are invisible to our current methods of direct detection. Yet something is holding galaxies and galaxy clusters together, and something else is causing space to fly apart. Scientists call these invisible components dark matter and dark energy; "dark" because these phenomena do not emit light. Dark matter and dark energy are the most eagerly studied subjects in astronomy and particle physics today.

24 Lectures



New Frontiers: Modern Perspectives on Our Solar System - DVD



This course is a visually stunning and richly detailed investigation of what we know about the solar system today. Illustrated with insightful diagrams, amazing computer animations, and scores of spectacular images from telescopes and spacecraft, these lectures show you a new and exciting way to view our celestial neighborhood. From the celebrated rovers on Mars and the Galileo probe orbiting Jupiter or Cassini at Saturn to the lesser-known missions studying asteroids and comets, and the pictures taken from ground-based observatories, space telescopes, and satellite missions help give you a clearer idea of just how critical the technological advancements of the space age have affected our views of the solar system.

24 Lectures

Tours of the Night Sky – Audio CD set

This package produced by the Astronomical Society of the Pacific includes two cassettes, two CDs and a booklet with transcript and graphics that treats you to an astronomer-guided tour of the evening sky in the northern hemisphere. This set will help stargazers of all ages find their way around the sky quickly and enjoyably. Each tour is a half hour (one for each season), featuring basic, easy-to-follow instructions and fascinating tales of the myths behind the constellation names.

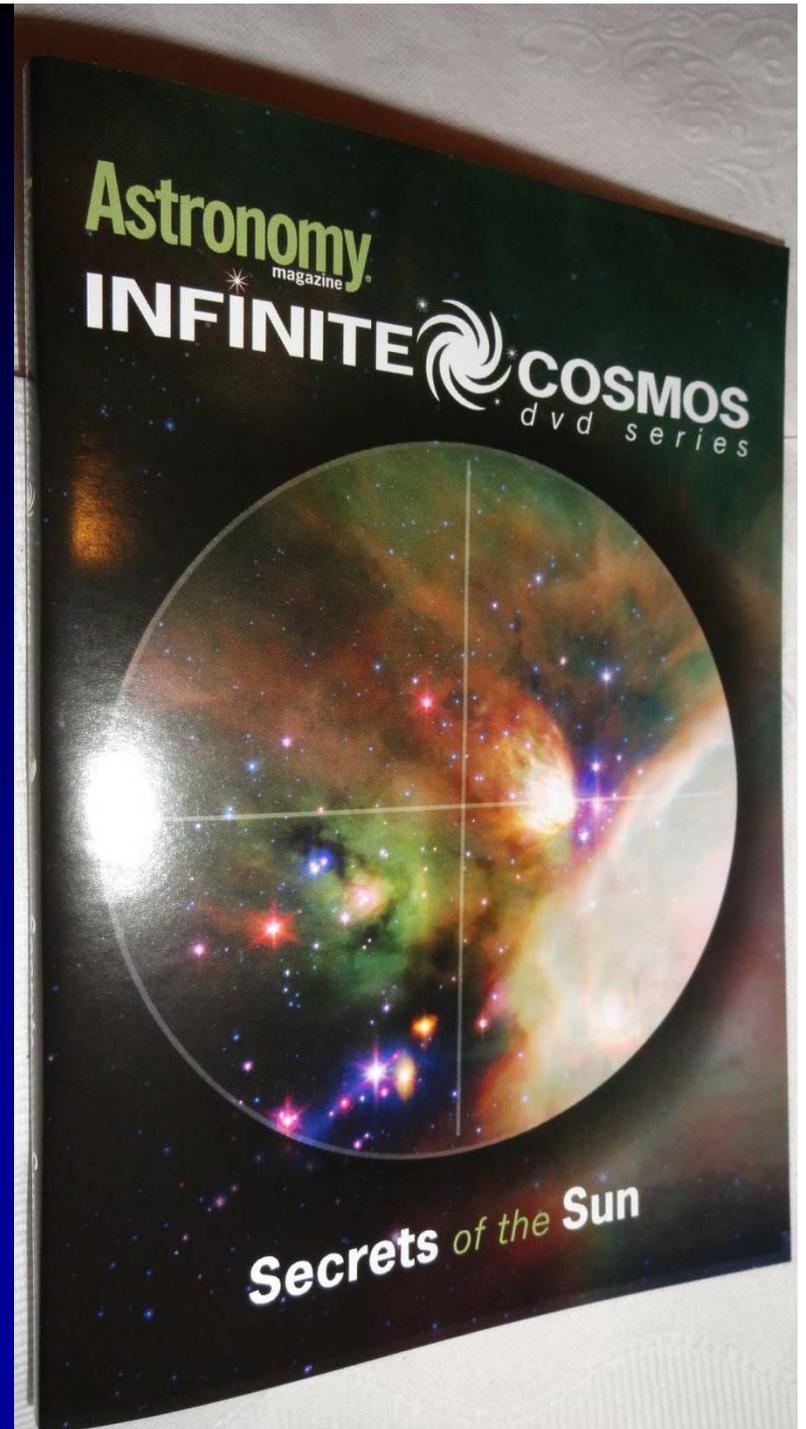


Astronomy magazine's *Infinite Cosmos* DVD series

The following DVDs are available:

**Secrets of the Sun, The Moon, Jupiter,
Mars, Gravity, Saturn: The Lord of the Rings,
Alien Planets, Hubble's Amazing Rescue,
Seven Wonders of the Solar System,
The Eclipse of the Century, Hunt for Ringed
Planets, Total Eclipse, It Fell from Space,
The Milky Way, and Mars: New Evidence**

More titles in this series to come...



Discover Magazine's Ultimate DVD Library

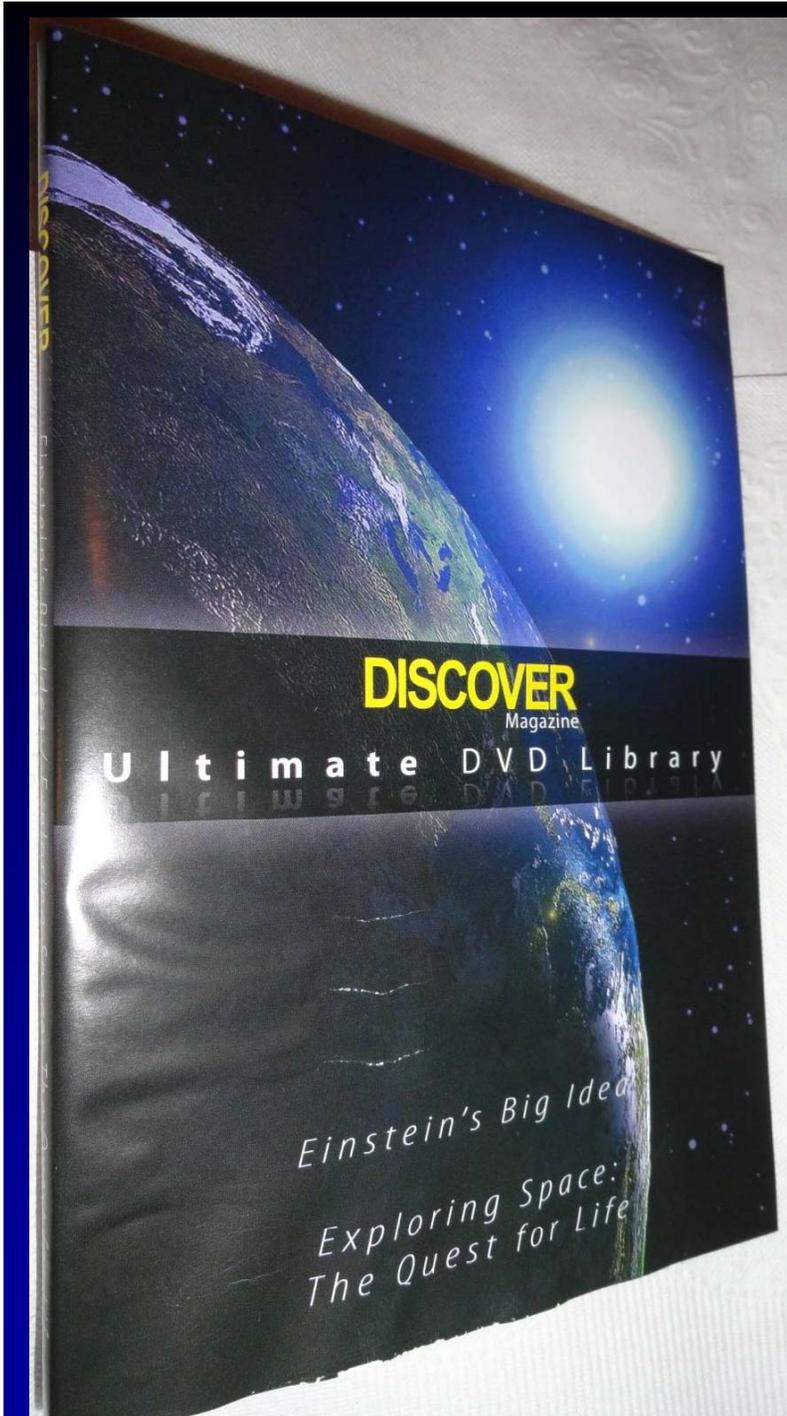
This DVD features two
programs:

Einstein's Big Idea

and

Exploring Space: The

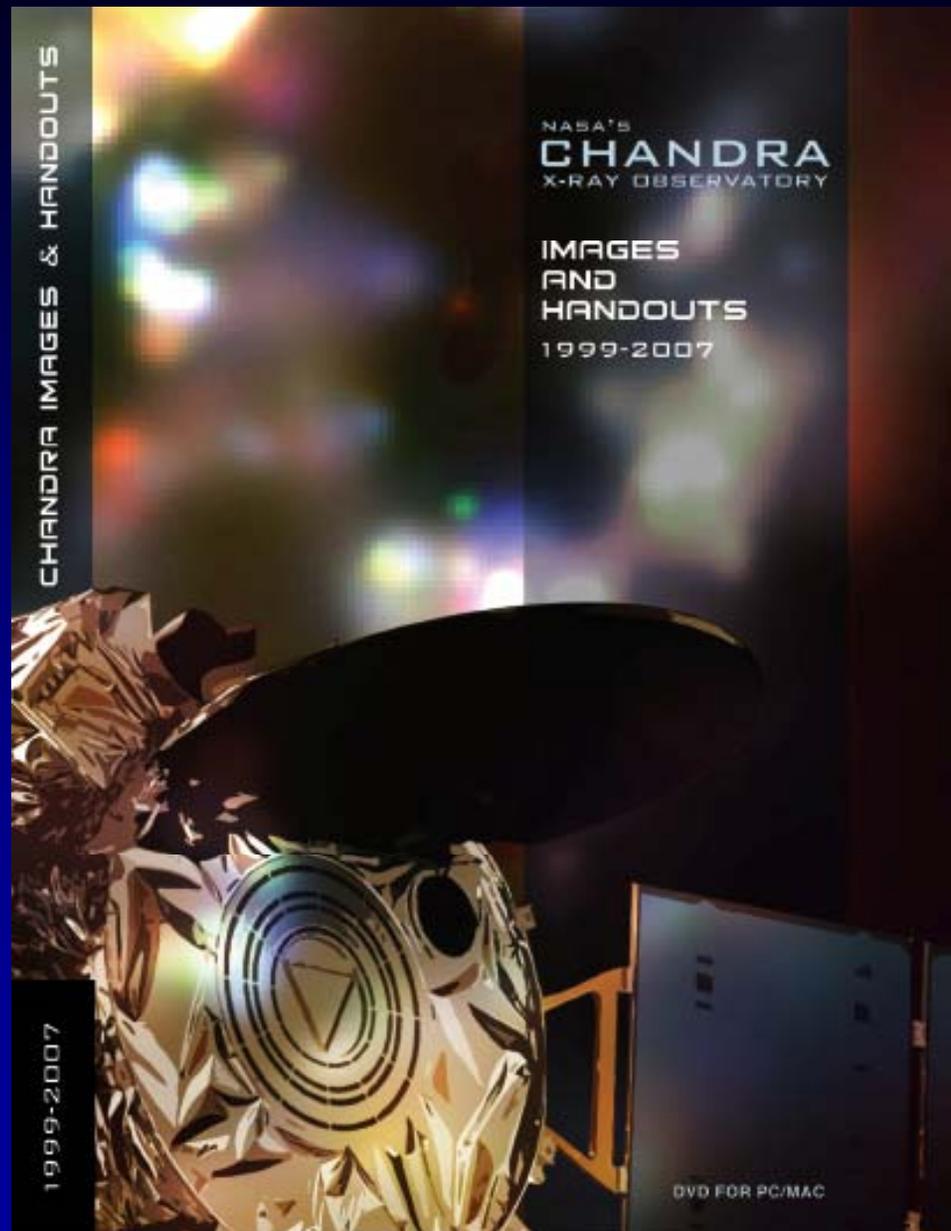
Quest for Life



Chandra X-ray Telescope DVD

Join Chandra's journey to probe cosmic phenomena from dark energy and dark matter to black holes and clusters of galaxies and nearly everything in between.

This computer data DVD contains over 300 Chandra images that were posted to the Chandra web site from August 1999 through December 2007. Each image is accompanied by a short description, fast facts and many are available with flash zoom-in features. There is also a folder of Special Features and Chandra Podcasts



Requirements to borrow media

- JSCAS member in good standing, 3 months or more.
- Have to be on the JSCAS list server (info@jscas.net)
- Personal email and phone number are required for loan of materials.
- Checkout time not to exceed 1 month (1 set per family). All borrowed material comes back to every regular JSCAS meeting for others' use.
- **Personal guarantee that damaged materials will be replaced.**

**Additions to the JSCAS
Media Library are welcomed.**

**Gifts can be monetary
contributions or recent, good
quality, DVDs.**