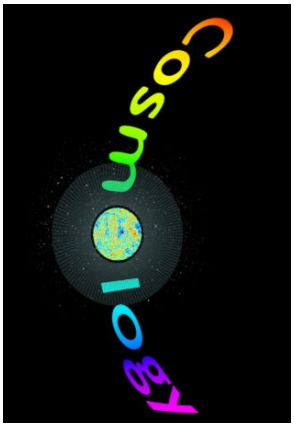
Traveling Planetarium Show Catalog

Full-Length Shows

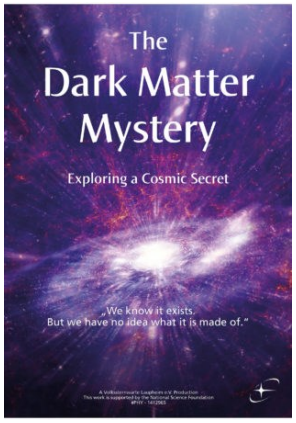
over 20 minutes long



Cosmology

The study of our universe is as old as time, yet our understanding of the origins and nature of the universe is less than 100 years old. This fulldome planetarium program, written and produced by high school and college students is an overview of the science of cosmology. From our earliest theories about the size of the universe to the big bang theory, this show details how our understanding has evolved over time.

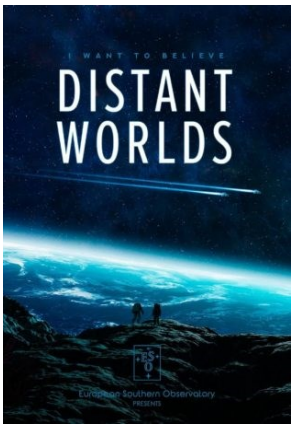
Run Time: 28 minutes; **Recommended Audience:** Ages 14 and up



The Dark Matter Mystery

What keeps Galaxies together? What are the building blocks of the Universe? What makes the Universe look the way it looks today? Researchers all around the world try to answer these questions. We know today that approximately a quarter of the Universe is filled with a mysterious glue: Dark Matter. We know that it is out there. But we have no idea what it is made out of. This fulldome planetarium show takes you on the biggest quest of contemporary astrophysics. You will see why we know that Dark Matter exists, and how this search is one of the most challenging and exciting searches science has to offer. Join the scientists on their hunt for Dark Matter with experiments in space and deep underground. Will they be able to solve the Dark Matter Mystery?

Run Time: 38 minutes; **Recommended Audience:** Ages 12 and up



Distant Worlds—Alien Life?

"Distant Worlds — Alien Life?" is a beautiful planetarium film exploring one of the most enduring questions of humankind — are we alone? For millennia our ancestors watched the stars, questioning the origin and nature of what they saw. Still today we ask these questions, knowing that the Universe is a vast place filled with billions and billions of stars and planets — but yet, Earth is the only planet we know for sure to be inhabited.

Run Time: 52 minutes; **Recommended Audience:** Ages 12 and up

From Earth to the Universe

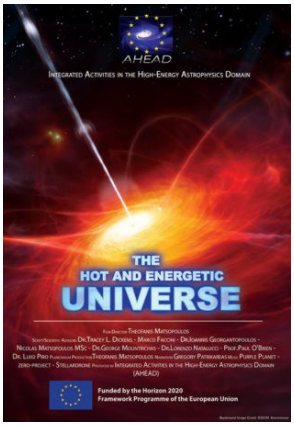
Take a journey through the solar system and the universe beyond. Learn how telescopes and space probes have changed our understanding of planets, moons, and other celestial objects.

Run Time: 30 minutes; **Recommended Audience:** Ages 6 and up

Flight Adventures

This 30-minute multi-media show from the Children's Museum of Indianapolis introduces children and families to the science, technology, and history of flight. The show features NASA's research and the advancements that have made space travel possible, along with the important role that models have played in flight development. NASA resources include images and experts.

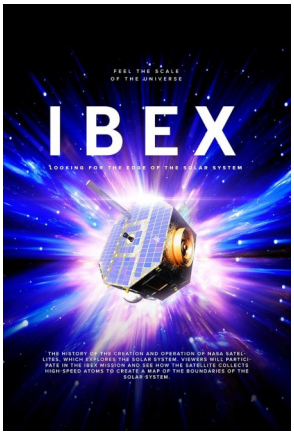
Run Time: 30 minutes; **Recommended Audience:** Ages 5 and up



The Hot and Energetic Universe

The planetarium documentary *The Hot and Energetic Universe* presents with the use of immersive visualizations and real images the achievements of the modern astronomy, the most advanced terrestrial and orbital observatories, the basic principles electromagnetic radiation and the natural phenomena related to the High Energy Astrophysics. High Energy Astrophysics plays a key role in understanding the universe. These radiations reveal the processes in the hot and violent Universe. This science also probes hot gas in clusters of galaxies, which are the most massive objects in the Universe. It also probes hot gas accreting around supermassive black holes in the centers of galaxies. Finally, high energy radiation provides important information about our own Galaxy, neutron stars, supernova remnants and stars like our Sun which emit copious amounts of high energy radiation.

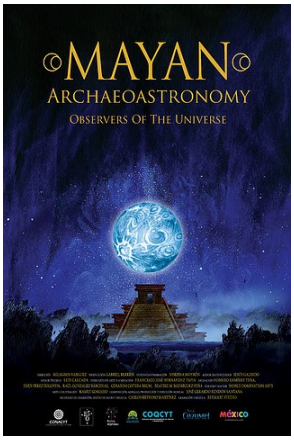
Run Time: 30 minutes; **Recommended Audience:** Ages 6 and up



IBEX

Discover how scientists and engineers are using cutting-edge technology to explore the boundary between our solar system and the rest of our galaxy. Learn how the IBEX mission was developed, how the spacecraft was created, and how IBEX is collecting high-speed atoms to create a map of our solar system's boundary, in this engaging planetarium show narrated by two inquisitive teenagers and the IBEX scientists and engineers themselves.

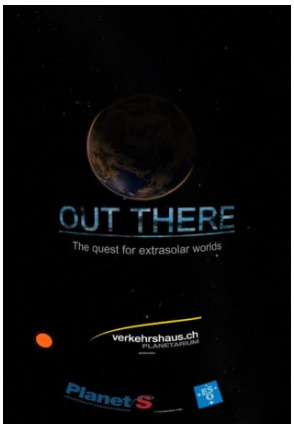
Run Time: 27 minutes; **Recommended Audience:** Ages 8 and up



Mayan Archaeoastronomy

In a feast of colours and sounds, Mayan Archaeoastronomy: Observers of the Universe makes a tour of 6 Mayan temples: San Gervasio, Chichen Itzá, Uxmal, Edzná, Palenque and Bonampak where the spectator dives into a Mayan world of knowledge about the importance of the orientations of its temples in relation to the movement of some stars like the Sun, the Moon and Venus.

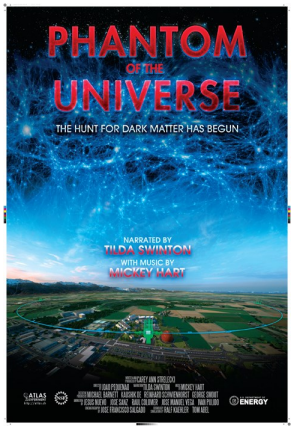
Run Time: 35 minutes; **Recommended Audience:** Ages 10 and up



Out There: The Quest for Extrasolar Worlds

For thousands of years, mankind thought that the Earth was the centre of the Universe. Thanks to our curiosity, imagination and urge to explore, we now know that planets like our Earth are nothing special in the cosmos. The Sun is just one ordinary star among hundreds of billions in our galaxy, the Milky Way. With the world's most powerful telescopes, we are able to explore more and more of the Universe. What we have found so far has surpassed even the wildest expectations of scientists as well as authors of science fiction. Most stars have planets — it turns out they are more common than we thought. A huge diversity of different worlds is out there, just waiting to be discovered.

Run Time: 30 minutes; **Recommended Audience:** Ages 6 and up



Phantom of the Universe

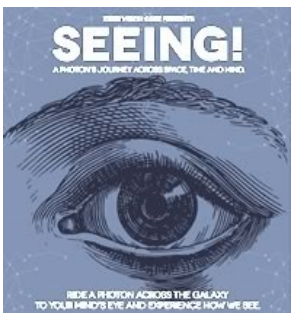
From the journey of protons racing through the world's largest particle collider in Europe to up-close views of the Big Bang and emergent cosmos, Phantom of the Universe is a new fulldome planetarium show designed to immerse audiences in the search for dark matter. A collaboration of Lawrence Berkeley National Lab, University of Texas at Arlington, Michigan State University, IFIC at University of Valencia, as well as other institutions. It is narrated by Oscar-winning actress, Tilda Swinton.

Run Time: 28 minutes; **Recommended Audience:** Ages 6 and up

Saturn: The Ring World

Saturn is the true "Lord of the Rings". After nearly seven years in transit, the two-story Cassini-Huygens spacecraft began orbiting Saturn on July 1, 2004. Cassini continues to explore Saturn and its moons during its extended mission, while the Huygens probe had landed on the surface of Titan, Saturn's largest moon. The Cassini Saturn encounter began with a flyby of Saturn's farthest moon, Phoebe. See Saturn up-close and all-around-you inside our dome theater.

Run Time: 22 minutes; **Recommended audience:** Ages 7 and up



Seeing!

Follow the journey of a single photon as it is produced in a distant star, before travelling across the vast expanse of space to land on someone's retina. This fulldome planetarium show explores some of the fascinating processes of the cosmos, from astrophysics to the biology of the eye and brain. Funded through a generous grant from ZEISS, the show is narrated by astronomer and science communicator, Neil deGrasse Tyson.

Run Time: 26 minutes; **Recommended Audience:** Ages 6 and up

Sunstruck

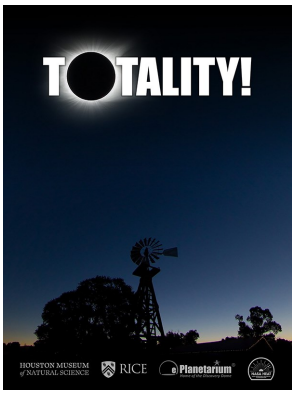
This exciting show on solar science, created by the Michigan Science Center in collaboration with NASA and narrated by noted science fiction author Mike Shepherd, shares the wonders of our own personal star, the Sun. The Sun's incredible energy has supported life on Earth for millennia, but it also poses threats to the way of life our 21st century technology has enabled. In Sunstruck, you will travel to the distant future to discover the Sun's connection to our universe's cosmic cycle of life and death.

Run Time: 21 minutes; **Recommended Audience:** Ages 8 and up

Tonight's Sky

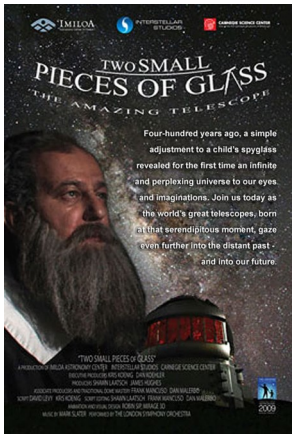
Since this show tells you all about the current night sky plus the latest exciting information about space, it's NEVER the same show twice! Is that a star or a planet? What is Orion hunting? What is a gibbous moon? What does the Milky Way look like? Hold on to your seat as you become part of the spectacular current night sky. This Planetarium program helps you get started observing the wonders of the sky from your own backyard. *This is a live Educator led show.*

Run Time: 30-45 minutes; **Recommended Audience:** Ages 5 and up



Totality!

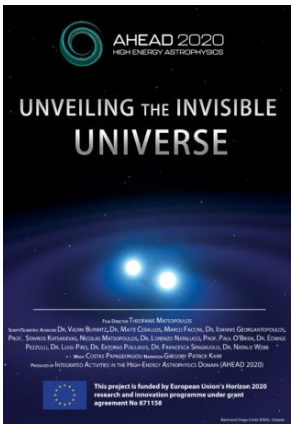
Two eclipses cross the US in 2023 and 2024 - an annular on October 14, 2023 and a total eclipse on April 8, 2024! Everyone in the continental US will experience at least a partial solar eclipse on April 8. Total solar eclipses are a rare and beautiful phenomena, and in this new planetarium show you will learn how eclipses happen, how to safely view one, and where these two eclipses take place. You will learn the history of eclipse watchers and how to observe safely. Texas is the nexus where the annular eclipse of 2023 and the total solar eclipse of 2024 cross! The next solar eclipse to cross the US is in 2045 so don't miss this one!! *Recommended for ages 5 and up.*



Two Small Pieces of Glass

Take a voyage through time and space and discover how a simple adjustment to a child's spy glass revealed an infinite and perplexing universe never before imagined. This amazing journey features two students who encounter an astronomer at a local star party and discover not only how telescopes work, but how they have enabled us to make some of the most incredible cosmic discoveries of the past few centuries. Then - learn where you can find some fascinating objects with a small telescope or binoculars in the current night sky with a Discovery Center educator as your guide.

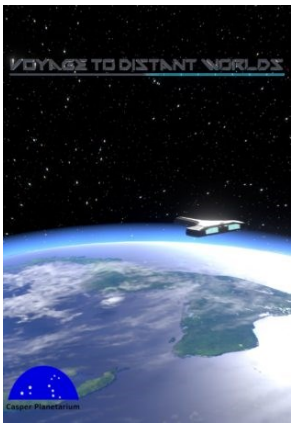
Run Time: 30 minutes; **Recommended Audience:** Ages 8 and up



Unveiling the Invisible Universe

For thousands of years the humans observed the light coming from the night sky with their eyes. In the beginning of the 17th century, the invention of the telescope by Galileo revolutionized our knowledge of the Universe. In the 20th century, with the advent of rockets, it became possible to go above the earth's atmosphere and observe X-ray and gamma ray radiation which are the marks of the hot and violent Universe. But, it is not only light that can give us information about the cosmos. Neutrinos and cosmic rays also provide vital information. Finally, the detection by the LIGO experiment of gravitational waves from two merging black holes opened a new window in astrophysics. This video presents images of the cosmos as revealed by all these different messengers.

Run Time: 28 minutes; **Recommended Audience:** Ages 8 and up



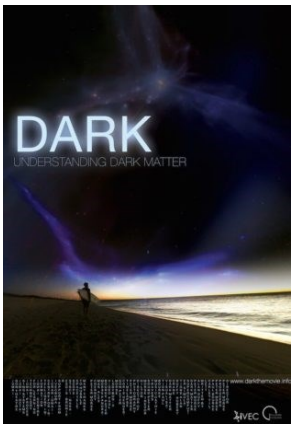
Voyage to Distant Worlds

A tour of the objects in our solar system from the sun out to the Kuiper belt. This fulldome show includes the latest info from various observatories and robotic space probes.

Run Time: 38 minutes; **Recommended Audience:** Ages 10 and up

Short Films

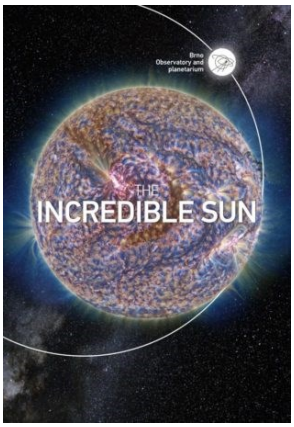
20 minutes or under



Dark

Dark is a fulldome movie that explains and explores the nature of dark matter, the missing 80% of the mass of the Universe. The search for dark matter is the most pressing astrophysical problem of our time – the solution to which will help us understand why the Universe is as it is, where it came from, and how it has evolved over billions of years – the unimaginable depths of deep time, of which a human life is but a flickering instant. But in that instant, we can grasp its immensity and, through science, we can attempt to understand it.

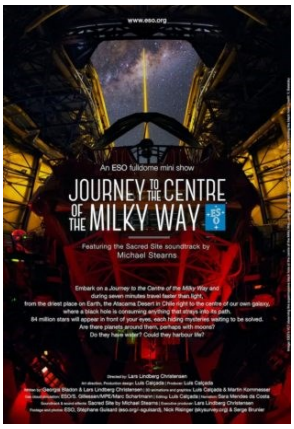
Run Time: 20 minutes; **Recommended Audience:** Ages 10 and up



The Incredible Sun

Every second the Sun emits million times more energy than the world consumes every year. Where does such a huge amount of power come from? Discover our star through the breathtaking timelapses. Thanks to the real images taken by the Solar Dynamics Observatory and processed by advanced mathematical methods, you will experience the true nature of the Sun and find out that it is far from being as calm as it seems at first glance.

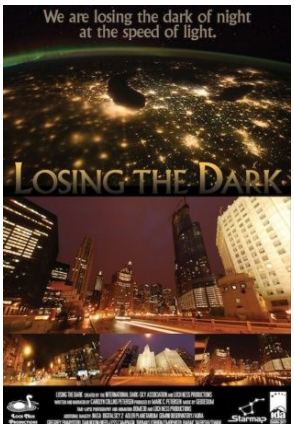
Run Time: 11 minutes; **Recommended Audience:** Ages 8 and up



Journey to the Center of the Milky Way

What lies at the heart of our galaxy? For twenty years, ESO's Very Large Telescope and the Keck telescopes have observed the center of the galaxy, looking at the motion of more than a hundred stars and identifying the position of an otherwise invisible object — the supermassive black hole at the center of our galaxy. Embark on a Journey to the Centre of the Milky Way and during seven minutes travel faster than light, from the driest place on Earth, the Atacama Desert in Chile right to the center of our own galaxy, where a black hole is consuming anything that strays into its path.

Run Time: 7 minutes; **Recommended Audience:** Ages 10 and up



Losing the Dark

Starry skies are a vanishing treasure because light pollution is washing away our view of the cosmos. It not only threatens astronomy, it disrupts wildlife, and affects human health. The yellow glows over cities and towns — seen so clearly from space — are testament to the billions spent in wasted energy from lighting up the sky. Losing the Dark is a "public service announcement" planetarium show, a collaboration of Loch Ness Productions and the International Dark-Sky Association. It introduces and illustrates some of the issues regarding light pollution, and suggests three simple actions people can take to help mitigate it.

Run Time: 6 minutes; **Recommended Audience:** Ages 6 and up

NASA: Journey to Mars

NASA wants you to be part of the Journey to Mars. Today, NASA is pushing the boundaries of technology and innovation. NASA's fleet of robotic scientific explorers at Mars are paving the way for human exploration. Join us in a monumental journey of a lifetime to extend the frontiers of human exploration, gaze across alien landscapes, and see our Sun rise over new horizons. Join us for NASA's JOURNEY TO MARS.

Run Time: 10 minutes; **Recommended Audience:** Ages 5 and up

New Horizons for a Little Planet

"New Horizons for a Little Planet" is a lighthearted introduction to NASA's New Horizons mission to Pluto and the Kuiper Belt. Launched in 2006, the New Horizons spacecraft is scheduled to fly by Pluto and its moons in July of 2015. The purpose of the program is to introduce planetarium visitors to the mission prior to its arrival at Pluto. After it encounters Pluto, New Horizons will continue on through the Kuiper Belt and the mission will likely be extended.

Run Time: 5 minutes; **Recommended Audience:** Ages 6 and up