AMERICAN MUSEUM ᴏ̃ NATURAL HISTORY

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DARK UNIVERSE,
A NEW HAYDEN PLANETARIUM SPACE SHOW,
PREMIERES NOVEMBER 2 AT AMERICAN MUSEUM OF NATURAL HISTORY

ASTROPHYSICIST NEIL DEGRASSE TYSON TO NARRATE

DECADES OF EXPLORATION LEAD TO DISCOVERY OF MYSTERIOUS DARK MATTER AND DARK ENERGY

Featuring exquisite renderings of enigmatic cosmic phenomena, seminal scientific instruments, and spectacular scenes in deep space, the new Hayden Planetarium Space Show *Dark Universe* celebrates the pivotal discoveries that have led us to greater knowledge of the structure and history of the universe and our place in it—and to new frontiers for exploration.

Produced by an innovative team that includes astrophysicists and science visualization experts, *Dark Universe*, which opens on November 2, starts at the edge of our solar system. After flying through our planetary neighborhood, visualized using the latest scientific data, viewers arrive at California's Mount Wilson Observatory, where Edwin Hubble's discovery that the universe is expanding gave the first hint of the Big Bang. That initial discovery, and ever-larger instruments on the ground and in space, led to other breakthroughs that give astronomers an increasingly detailed and precise picture of how our universe formed and evolved.

But these revelations have also uncovered intriguing new mysteries. What is the mysterious dark energy accelerating cosmic expansion? What is the invisible dark matter underlying galaxies that, together with dark energy, account for at least 95 percent of the universe's total energy and mass? What lies beyond our cosmic horizon? In stunningly detailed scenes based on authentic scientific data—including a NASA probe's breathtaking

plunge into Jupiter's atmosphere and novel visualizations of unobservable dark matter—*Dark Universe* explores this new age of cosmic discovery and reveals the mysteries that have been brought to light so far.

Dark Universe is curated by Dr. **Mordecai-Mark Mac Low**, a curator in the Museum's Department of Astrophysics and Division of Physical Sciences who studies the formation and evolution of planets, stars, and galaxies. Serving as director is **Carter Emmart**, the Museum's director of astrovisualization and one of the original team members of the NASA-funded Digital Galaxy Project, now known as the Digital Universe, which helped redefine how planetarium theaters present science to the public through immersive data visualization.

Dark Universe is produced by **Vivian Trakinski**, who directs the Museum's Science Bulletins media program. Dr. **Rosamond Kinzler**, senior director of science education and co-curator of the Museum's David S. and Ruth L. Gottesman Hall of Planet Earth, is the executive producer.

Narrating the new Space Show is Dr. **Neil deGrasse Tyson**, astrophysicist, prolific science communicator, and the Frederick P. Rose Director of the Hayden Planetarium. Dr. Tyson's research focus spans star formation and exploding stars to dwarf galaxies and the structure of the Milky Way. Best-selling science writer **Timothy Ferris** wrote the script, and the score is by **Robert Miller**, a New York City composer who wrote the music for two previous Space Shows.

Dark Universe is the fifth Space Show since the opening of the Rose Center for Earth and Space in 2000, which premiered *Passport to the Universe*, narrated by Tom Hanks, the same year. Previous Space Shows have also included *The Search for Life: Are We Alone?* (2002), narrated by Harrison Ford; *Cosmic Collisions* (2006), narrated by Robert Redford; and *Journey to the Stars* (2009), narrated by Whoopi Goldberg.

Dark Universe was created by the American Museum of Natural History,
the Frederick Phineas and Sandra Priest Rose Center for Earth and Space,
and the Hayden Planetarium.

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Dark Universe was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the California Academy of Sciences, San Francisco, and GOTO INC, Tokyo, Japan.

AMERICAN MUSEUM OF NATURAL HISTORY (AMNH.ORG)

The American Museum of Natural History, founded in 1869, is one of the world¹s preeminent scientific, educational, and cultural institutions. The Museum encompasses 45 permanent exhibition halls, including the Rose Center for Earth and Space and the Hayden Planetarium, as well as galleries for temporary exhibitions. It is home to the Theodore Roosevelt Memorial, New York State's official memorial to its 33rd governor and the nation's 26th president, and a tribute to Roosevelt's enduring legacy of conservation. The Museum's five active research divisions and three cross-disciplinary centers support 200 scientists, whose work draws on a world-class permanent collection of more than 32 million specimens and artifacts, as well as specialized collections for frozen tissue and genomic and astrophysical data, and one of the largest natural history libraries in the world. Through its Richard Gilder Graduate School, it is the only American museum authorized to grant the Ph.D. degree. In 2012, the Museum began offering a pilot Master of Arts in Teaching program with a specialization in Earth science. Approximately 5 million visitors from around the world came to the Museum last year, and its exhibitions and Space Shows can be seen in venues on five continents. The Museum¹s website and collection of apps for mobile devices extend its collections, exhibitions, and educational programs to millions more beyond its walls. Visit amnh.org for more information.

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