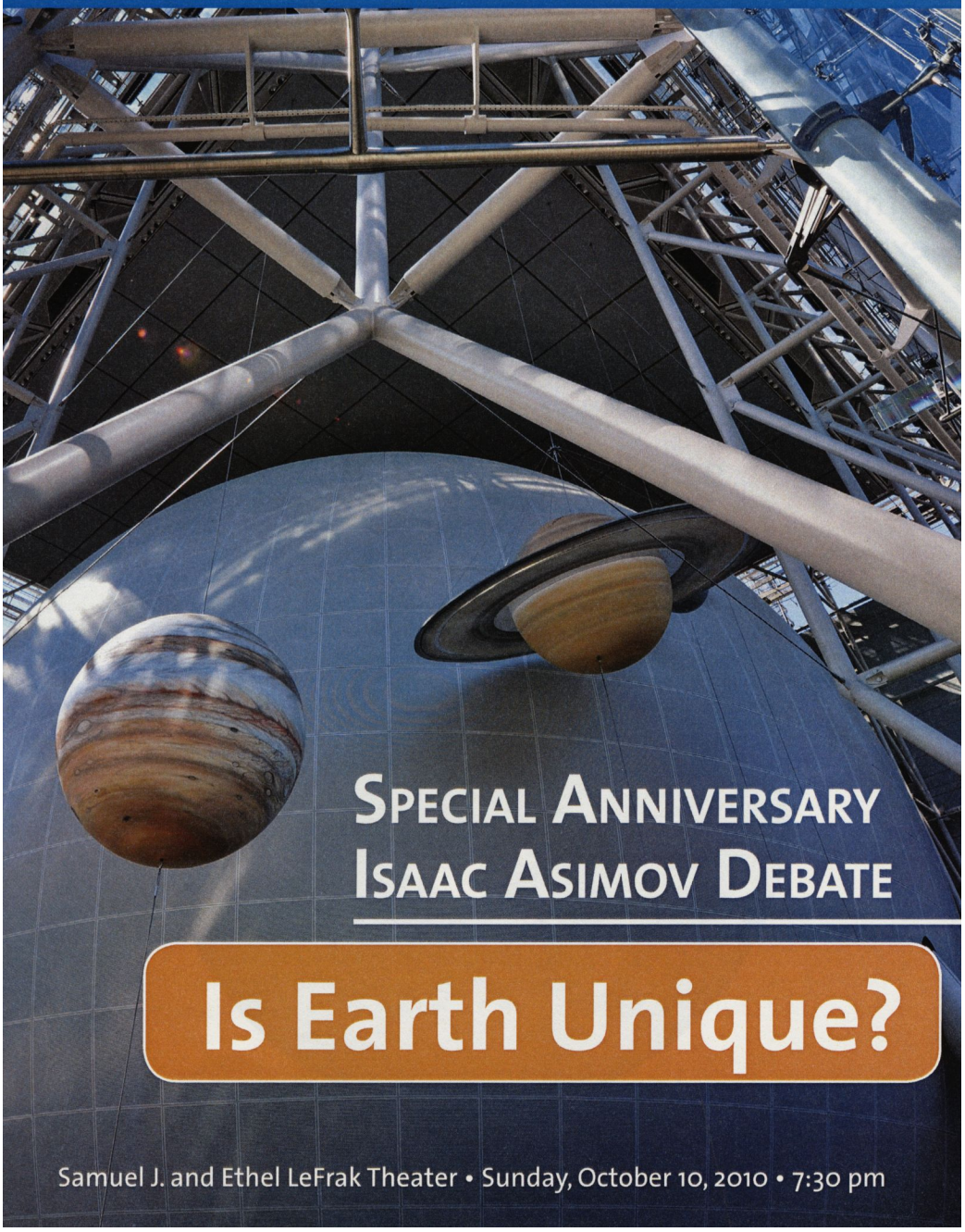
American Museum of Natural History

Rose Center for Earth and Space



Special Anniversary Isaac Asimov Debate

Is Earth Unique?

Samuel J. and Ethel LeFrak Theater • Sunday, October 10, 2010 • 7:30 pm

Is Earth Unique?

With what we now know about stars in our Galaxy and the planets that orbit them, we can begin to address this question with informed debate.

This evening's panelists are selected for their diverse expertise in geology, biology, chemistry, and physics and for the ways they have applied these fields to address the past, present, and future of planet Earth.

TONIGHT'S PROGRAM

Welcome and Introduction

Opening Questions

Directed Free Debate Among Panelists

Questions from Audience

Adjournment

Book Sale/Book and Program Signing
(Hall of Northwest Coast Indians)

Participants

Fred Adams
Professor of Physics, University of Michigan

Fred Adams is a professor of physics at the University of Michigan. Professor Adams works in the general area of theoretical astrophysics with a focus on star formation and cosmology. He is internationally recognized for his work on the radiative signature of the star formation process, the dynamics of circumstellar disks, the physics of molecular clouds, and the stellar initial mass function. His recent work in star formation includes an assessment of the effects the cluster environment on forming stars and studies of extra-solar planetary systems. In cosmology, he has studied the inflationary universe, cosmological phase transitions, magnetic monopoles, cosmic rays, cosmic background radiation fields, and the long-term fate of the universe.

Don Brownlee
Professor of Astronomy, University of Washington

Don Brownlee is a professor of astronomy at the University of Washington who studies the origin of the solar system. He was the principal investigator of the NASA Stardust comet sample return mission and he is a member of the National Academy of Sciences. He has an asteroid and a mineral named after him and he co-authored the books *The Life and Death of Planet Earth* and *Rare Earth: Why Complex Life Is Uncommon in the Universe* along with Peter Ward.

Paul G. Falkowski
Professor of Geological and Marine Sciences, Rutgers University

Paul G. Falkowski is the Board of Governors' Professor of Geological and Marine Sciences at Rutgers University. His research interests include evolution of life, photosynthesis, and biophysics. He is a member of the National Academy of Sciences and American Academy of Arts and Sciences and has authored or coauthored over 250 papers in peer-reviewed journals and books. His research focuses on the evolution of electron transfer reactions in microbes and the origins of biogeochemical cycles.

Chris Mckay
Scientist, NASA Ames Research Science Center

Chris McKay is a NASA research scientist whose research focuses on the evolution of the solar system and the origin of life. He is also actively involved in planning for future Mars missions including human exploration. Chris been involved in research in Mars-like environments on Earth, traveling to the Antarctic dry valleys, Siberia, the Canadian Arctic, and the Atacama and Sahara deserts to study life.

Minik T. Rosing
Professor of Geology, University of Copenhagen

Minik T. Rosing is a professor of geology at the University of Copenhagen. Professor Rosing works on the early history of Earth and the influence of life on Earth's evolution. His research has focused on the oldest preserved sediments on Earth: the more than 3,700-million-year-old Isua Supracrustals from West Greenland where he has described the earliest traces of life on Earth.

Host and Moderator

Neil deGrasse Tyson
Frederick P. Rose Director of the Hayden Planetarium

An astrophysicist at the American Museum of Natural History, Neil deGrasse Tyson was born and raised in New York City, where he attended public schools and graduated from the Bronx High School of Science. He earned his B. A. in physics from Harvard and his Ph.D. in astrophysics from Columbia. Tyson is the author of nine books, most recently *The Pluto F iles* and *The New York Times*-bestseller *Death By Black Hole*. Tapped frequently by the news media for his comments on the universe, Tyson also hosts the PBS TV series "NOVA scienceNOW."

Follow him on Twitter @neiltyson.

The late Dr. Isaac Asimov, one of the most prolific and influential authors of our time, was a dear friend and supporter of the American Museum of Natural History.

In his memory, the Hayden Planetarium is honored to host the annual Isaac Asimov Memorial Debate, generously endowed by relatives, friends, and admirers of Isaac Asimov and his work, bringing the finest minds in the world to the Museum each year to debate pressing questions on the frontier of scientific discovery.

Proceeds from ticket sales of the Isaac Asimov Memorial Debates benefit the scientific and educational programs of the Hayden Planetarium.

Previous Debates

2010 Moon, Mars or Bust: Where Next for the Manned Space Program
2009 From Planets to Plutoids
2008 Mining The Sky
2007 The Pioneer Anomaly
2006 Universe: One or Many?
2005 The Enigma of Alien Solar Systems
2004 The Dark Side
2003 The Big Bang
2002 The Search For Life In the Universe
2001 The Theory of Everything

Upcoming Hayden Programs

Ten Years of Space Shows at the Rose Center for Earth and Space
Wednesday, October 13 • 6 pm
$20 adults; $12 children (Members' tickets are $12 adults, $7.50 children)

Blast to the past and see all four of the Hayden Planetarium Space Shows in one evening.

A Tear at the Edge of Creation with Marcelo Gleiser
Monday, October 18 • 7:30 pm
$15 ($13.50 Members, students, senior citizens)

Does a single explanation exist for nature in all its complexity? Examine a new theory based on modern science. *Book signing to follow.*

Ten Years in a 3D Digital Universe with Carter Emmart and Brian Abbott
Tuesday, October 26 • 6:30 pm
$15 adults (Members' tickets are $13.50 adults)

Discover how the Hayden Planetarium's Digital Universe has grown since it first launched ten years ago in this live guided tour of the cosmos.

Grand Tour of the Universe with Brian Abbott
Tuesday, November 30 • 6:30 pm
$15 adults (Members' tickets are $13.50 adults, $8 children)

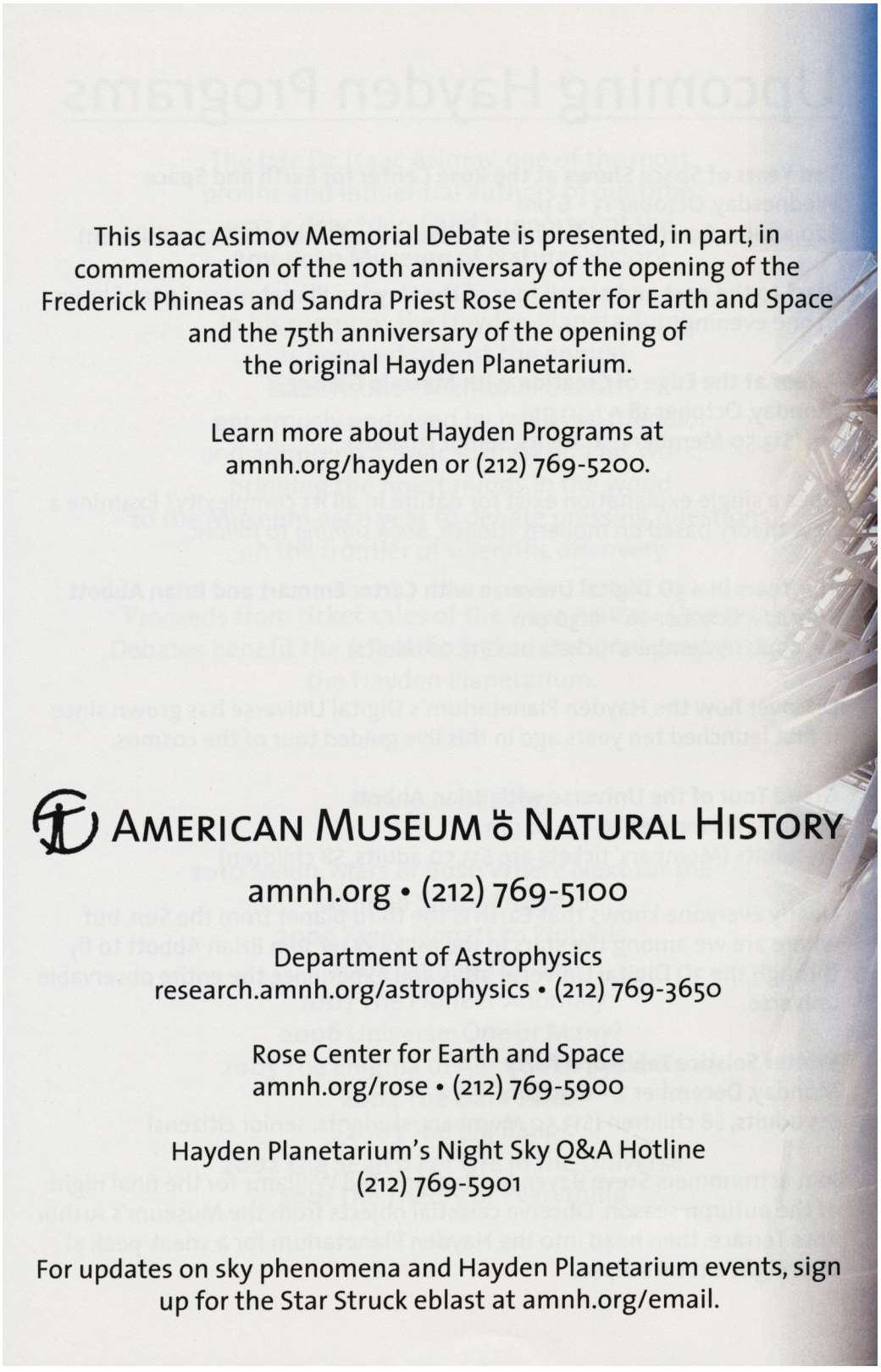
Nearly everyone knows that Earth is the third planet from the Sun, but where are we among the stars in the Milky Way? Join Brian Abbott to fly through the 3D Digital Universe atlas and experience the entire observable universe.

Winter Solstice Telescope Party
Monday, December 2 • 6:30 pm
$15 adults, $8 children ($13.50 Members, students, senior citizens)

Join astronomers Steve Beyer, Joe Rao, and Ted Williams for the final night of the autumn season. Observe celestial objects from the Museum's Arthur Ross Terrace, then head into the Hayden Planetarium for a sneak peek at that night's total eclipse.

This Isaac Asimov Memorial Debate is presented, in part, in commemoration of the 10th anniversary of the opening of the Frederick Phineas and Sandra Priest Rose Center for Earth and Space and the 75th anniversary of the opening of the original Hayden Planetarium.

Learn more about Hayden Programs at amnh.org/hayden or (212) 769-5200.



AMERICAN MUSEUM OF NATURAL HISTORY

amnh.org • (212) 769-5100

Department of Astrophysics
research.amnh.org/astrophysics • (212) 769-3650

Rose Center for Earth and Space
amnh.org/rose • (212) 769-5900

Hayden Planetarium's Night Sky Q&A Hotline
(212) 769-5901

For updates on sky phenomena and Hayden Planetarium events, sign up for the Star Struck eblast at amnh.org/email.