It is a pleasure to present the speakers on the 2006 Mediterranean Eclipse Cruise. I've been leading eclipse expeditions for 30 years-- from Mexico to South Africa, from the Galapagos to France, and it has always been my goal to create the finest possible experience. With two years to prepare, and such a large group of travelers on this cruise, I've had the luxury of putting together the finest group of speakers ever assembled for any eclipse trip. Each one is an expert in her or his field and an audience favorite who garners rave reviews. You've probably seen many on TV or read their books. And the leaders of our children's program -- never before offered on an eclipse cruise -- are two of the best teachers in the United States. Enjoy their company!

We will have additional well-known astronomers on board, including Mark Voit of Michigan State University, Bruce Weaver, of the Monterey Institute for Research in Astronomy, and others. Enjoy meeting them, too.

You will receive an expanded view of this information in a booklet when we sail.

_Douglas Duncan – Boulder, Colorado – Fall 2005_

**Dr. Jeffrey Bennett**

Jeff Bennett holds a B.A. in Biophysics from the University of California at San Diego and an M.S. and a Ph.D. in Astrophysics from the University of Colorado at Boulder. He specializes in math and science education, spending most of his time as a writer, speaker, and consultant. He has taught extensively at all levels, including founding and running a private science summer school for elementary and middle school children. He is the author of leading college textbooks in four subject areas: astronomy, mathematics, statistics, and life in the universe, as well as _On the Cosmic Horizon_. Dr. Bennett will visit our children’s program and sign copies of his award-winning children's book _Max Goes to the Moon_ that we will distribute to all participants. Coming in fall 2005 is _Max Goes to Mars_.

Dr. Bennett’s most visible achievement is educational scale models of the solar system. He proposed the idea for and helped develop both the Colorado Scale Model Solar System (on the University of Colorado campus) and the Voyage Scale Model Solar System on the National Mall in Washington, DC.
Dr. Megan Donahue

Megan Donahue is an associate professor in the Department of Physics and Astronomy of Michigan State University. Her current research is mainly on clusters of galaxies: their contents—dark matter, hot gas, galaxies, active galactic nuclei—and what they reveal about the contents of the universe and how galaxies form and evolve. She grew up on a farm in Nebraska and received a bachelor's degree in physics from MIT, where she began her research career as an X-ray astronomer. She then attained a Ph.D. in astrophysics from the University of Colorado. Her thesis on theory and observations of intergalactic and intracluster gas won the 1993 Trumpler Award from the Astronomical Society for the Pacific for the outstanding dissertation in the country that year. She did post-doctoral research as a Carnegie Fellow in Pasadena, California and was a staff astronomer at the Space Telescope Science Institute when she joined the MSU faculty. Dr. Donahue is married to fellow astronomer Mark Voit, who is a frequent collaborator on many projects including writing the widely used college astronomy textbook The Cosmic Perspective and raising their three children, Michaela, Sebastian, and Angela. Between the births of Sebastian and Angela, Megan ran the Boston Marathon.

Dr. Douglas Duncan

Doug Duncan is the director of the largest planetarium between Chicago and the Pacific, the Fiske, and of the Somers-Bausch Observatory at the University of Colorado, Boulder. Previously he held dual appointments at the Department of Astronomy and Astrophysics of the University of Chicago and Chicago's Adler Planetarium, where he helped begin a trend of modernizing planetariums that has spread to New York, Denver, and beyond. He served as national Education Coordinator for the American Astronomical Society, the society that represents the 6,000 professional astronomers in the US. In that capacity he led efforts for better teaching and public communication throughout the United States. Before moving to Chicago, he was a staff astronomer at the Space Telescope Science Institute (STSI) where he was responsible for one of the Hubble Telescope’s original instruments. While at STSI, he was one of 5 astronomers who organized the 1992 meeting “Women in Astronomy,” the first to examine whether men and women have equal access to astronomy careers.

Dr. Duncan’s research studies the oldest known stars - "fossil stars" - which date back almost to the time of the Big Bang. These have provided direct evidence of the explosive birth of our Milky Way galaxy and shed light on conditions at the time of the Big Bang. He has worked at the Lick Observatory, California's Mt. Wilson and Palomar Observatories,
and at Las Campanas Observatory in Chile. He was part of a group that discovered sunspot cycles on other stars, similar to the 11-year cycle seen on the Sun. Some of his most interesting work involved the discovery that when the Sun was young it may have been spinning much faster than it is today, throwing off material and radiating strong ultraviolet and x-rays. This may well have affected the earth when it was young and even the development of life.

Dr. Duncan is a national leader in presenting the excitement of scientific discoveries to the public. He has appeared on BBC television and served extensively as science commentator on National Public Radio. His recent book, Clickers in the Classroom, describes the remarkable way in which inexpensive wireless technology is being used to enhance science teaching.

Dr. Duncan has led groups of people to photograph Halley's Comet in South America, to many total eclipses, and into the Arctic to photograph the aurora. His photography has been published by National Geographic. In April 1993 he traveled to the North Pole, and was elected to The Explorers Club in 1991.

**Dr. Erica Ellingson**

Erica Ellingson is an associate professor in the Center for Astrophysics & Space Astronomy at the University of Colorado, Boulder. She received a B.Sc. in Physics from MIT and a Ph.D. in Astronomy from the University of Arizona. After postdoctoral positions at Dominion Astrophysical Observatory and University of Colorado, Boulder, she was a visiting professor at New Mexico State University until joining the CU faculty in 1995.

Dr. Ellingson’s research centers on the evolution of galaxies and quasars, and observational cosmology-- the origin and evolution of the universe. Much of her recent work concerns rich clusters of galaxies: how much dark matter they contain, the properties of their galaxies, and the hot gas held inside the clusters. Of particular interest is how the environment of the galaxy cluster affects the unfortunate galaxies which fall into it, and the relation between quasars and active galaxies and their cluster-scale environment. She is also part of a large consortium to discovery new very distant clusters as probes of cosmology and galaxy evolution. Dr. Ellingson uses a variety of telescopes in her research: ground-based telescopes from around the world, the Hubble Space Telescope, the Chandra X-Ray space telescope, and the Very Large Array radio telescope in New Mexico. Dr. Ellingson is also known for creating innovative, multi-media planetarium programs on the topics of dark matter and cosmology.
Dr. Elaine Fantham

Born in England, Elaine Fantham took undergraduate degrees at Oxford and earned her Ph.D. at the University of Liverpool in 1962. After two years at the University of Indiana, she moved to Canada, where she was a member of the faculty at the University of Toronto from 1968 to 1986. She served as the Giger Professor at Princeton University from 1986-1999. Her main interests are women and other non-elites in the Roman empire, and pre-Christian popular religion. At Princeton she taught graduate courses on Roman epics, undergraduate courses on the *Aeneid*, and a seminar on Roman religion.

A former trustee of the American Academy in Rome, Fantham has been vice president of the Classical Association of Canada and president of the American Philological Association. She chaired the Princeton Classics Department from 1989 to 1992 and directed the Program in the Ancient World.


Upon attaining professor emerita status, Dr. Fantham became a Phi Beta Kappa Visiting Scholar, speaking on Roman literature and society. For the last eight years she has contributed a fascinating series of commentary regarding the classical world on National Public Radio’s *Weekend Edition – Saturday* (available at www.npr.org).

Dr. Heidi B. Hammel

Dr. Heidi B. Hammel received her undergraduate degree from the Massachusetts Institute of Technology in 1982 and her Ph.D. in physics and astronomy from the University of Hawaii in 1988. After a post-doctoral position at the Jet Propulsion Laboratory (Pasadena, California), she returned to MIT, where she spent nearly nine years as a Principal Research Scientist. She is now a Senior Research Scientist with the Space Science Institute (Boulder, Colorado) and lives in Connecticut.
Dr. Hammel primarily studies outer planets and their satellites. As an acknowledged expert on Neptune, she was a member of the Imaging Science Team for the Voyager 2 encounter with that planet. For the impact of Comet Shoemaker-Levy 9 with Jupiter, Dr. Hammel led the Hubble Telescope Team that investigated Jupiter's response to the collisions. She is an Interdisciplinary Scientist for the Hubble Telescope's successor, the James Webb Space Telescope, scheduled for launch in 2012.

Dr. Hammel was identified as one of the 50 most important women in science by Discover Magazine in 2002 and was elected a Fellow of the American Association for the Advancement of Science in 2000. In 1996 she received the Urey Prize for "outstanding achievement in planetary research by a young scientist."

She has also been lauded for her work in public outreach, including the Astronomical Society of the Pacific's 1995 Klumpke-Roberts Award for public understanding and appreciation of astronomy, the 1996 "Spirit of American Women" National Award for encouraging young women to follow non-traditional career paths, the San Francisco Exploratorium's 1998 Public Understanding of Science Award, and the 2002 Carl Sagan Medal for outstanding communication to the public. Asteroid 3530 Hammel is named in her honor.

Dr. Chris Impey

Chris Impey is University Distinguished Professor at the University of Arizona. As Deputy Department and Academic Head, he runs the nation’s largest undergraduate majors program in astronomy, and the second largest Ph.D. program. His research interests are in observational cosmology, gravitational lensing, and the evolution and structure of galaxies. He has over 140 refereed publications and 50 published conference proceedings. His research has been supported by more than $10 million in grants from NASA and the National Science Foundation, and he has had 24 projects approved and been given time on astronomy’s premier research facility, the Hubble Space Telescope. In addition, he has used most of the world’s large ground-based telescopes.

As a professor, Dr. Impey has taught astronomy to over 4000 students and won eleven teaching awards at the University of Arizona. He has pioneered curriculum development in astrobiology, and leads a major three-year effort sponsored by the Templeton Foundation to explore issues at the interface of science and religion. A career goal is to make astronomy accessible to a very wide audience, and to this end he gives a dozen or more public talks annually, and has been a Shapley Lecturer for the American Astronomical Society for many years. Working with the planetary scientist Bill Hartmann, he has co-authored two introductory texts, and
written more than twenty popular articles on cosmology and astrobiology. He is the creator of the *Astronomica* web site, which supports 1000 students a semester with interactive tools and instructional technology. His web design and curriculum projects have been supported by NASA and the National Science Foundation.

Impey is currently Vice President of the American Astronomical Society and serves on its Astronomy Education Board. In 2002 he was named the Arizona Professor of the Year by the Carnegie Council for the Improvement of Teaching, and was one of six people nationwide named Distinguished Teaching Scholar by the National Science Foundation.

**Dr. Robert Pappalardo**

Bob Pappalardo is an Assistant Professor in the Astrophysical and Planetary Sciences Department and the Laboratory for Atmospheric and Space Physics at the University of Colorado, Boulder. His research focuses on processes that have shaped the icy satellites of the outer solar system, especially Europa and the role of its probable subsurface ocean. He received his B.A. (1986) in Geological Sciences from Cornell University, and his Ph.D. in Geology from Arizona State University (1994).

As an affiliate member of the Galileo Imaging Team while a researcher at Brown University, he planned many of the Galileo observations of Jupiter's icy Galilean satellites. Along the way, he has worked with various science museums and organizations to bring the excitement of astronomy and planetary exploration to the public. He is known as an enthusiastic teacher and one of the most highly regarded by students.

**Francisco “Tito” Salas**

Francisco (Tito) Salas is Manager of the Fiske Planetarium at the University of Colorado, Boulder. A native of Venezuela, Tito is an experienced educator who taught physics at Boulder High School before coming to Fiske twelve years ago. At the planetarium he conducts programs for students and teachers at all K-12 grade levels, on subjects including astronomy, sound, light, and – a favorite – model rocketry. He also produces Planetarium shows including visual and audio effects.

Two recent planetarium shows he worked on, “Deep Impact” and “Space Storm,” represented NASA missions and have been seen throughout the US and in several foreign countries. Tito is bilingual in English and Spanish and teaches many bilingual programs.
Dr. Nicholas M. Schneider

Nick Schneider is an associate professor in the Department of Astrophysical and Planetary Sciences at the University of Colorado and a researcher in the Laboratory for Atmospheric and Space Physics. He received his B.A. in physics and astronomy from Dartmouth College in 1979 and his Ph.D. in planetary science from the University of Arizona in 1988. In 1991, he received the National Science Foundation’s Presidential Young Investigator Award.

Dr. Schneider’s research interests include planetary atmospheres and planetary astronomy, with a focus on the odd case of Jupiter's moon Io. He enjoys teaching at all levels and is active in efforts to improve undergraduate astronomy education. With Drs. Jeff Bennett, Megan Donahue, and Mark Voit, he is co-author of the most widely-used textbook in astronomy: The Cosmic Perspective.

Amy Southon

Amy Southon is Associate Director of Programs at the DuPage Children’s Museum. She holds bachelor's degrees in Art History and German from the University of Michigan and a master's degree in Museum Education from George Washington University.

From 1991 – 1997 Amy played a key role in the modernization of The Adler Planetarium in Chicago, first as a project manager and evaluator and then, from 1995-1997, as head of Education. She managed exhibit design, conducted evaluation, and taught outreach programs to schools and the general public. Her exhibit Light!Spectra!Action!, produced with Dr. Doug Duncan, was Adler’s most successful museum exhibit for a diverse audience of children, parents, and grandparents. Elements of that exhibit have been utilized elsewhere including in the Visitor’s Center of Kitt Peak National Observatory.