Interactions News Wire #27-08
15 April 2008 http://www.interactions.org
****
Source: Fermilab/University of Chicago
Content: Press Release
Date Issued: 15 April 2008
****

Contacts:
Steve Koppes, University of Chicago News Office, 773-702-8366, skoppes@uchicago.edu
Kurt Riesselmann, Fermilab Office of Communication, 630-840-3351, kurtr@fnal.gov

Cosmologist accepts joint appointment at Fermilab, U. of Chicago Craig Hogan to lead particle astrophysics effort

Craig Hogan, a member of one of the scientific teams that co-discovered dark energy, will soon assume dual roles as Director of the Center for Particle Astrophysics at the Department of Energy's Fermi National Accelerator Laboratory and as a Professor of Astronomy & Astrophysics at the University of Chicago.

Hogan is a Professor of Astronomy and Physics at the University of Washington and a member of the international High-z Supernova Search Team that in 1998 co-discovered dark energy, the mysterious force that works against gravity to accelerate the expansion of the universe. Hogan's hiring is the first joint appointment since the University took a major role in managing Fermi National Accelerator Laboratory for the U.S. Department of Energy in 2007.

"Craig Hogan is an outstanding and respected leader in the field of particle astrophysics," said Fermilab Director Pier Oddone. "I am delighted that he will bring his energy and vision to Fermilab's Center for Particle Astrophysics, a vital part of Fermilab's scientific program."

Chicago scientists founded the field of particle astrophysics at Fermilab during the 1980s, said Edward "Rocky" Kolb, Professor and Chairman of the Department of Astronomy & Astrophysics at the University of Chicago. In this field, scientists study the connections between forces and objects at the largest and smallest scales of the universe.

"Craig is a high-profile scientist, and he sees a great future in the Fermilab-Chicago connection in particle astrophysics," Kolb said.

Said Hogan: "The cosmology and particle astrophysics community at Fermilab and the University of Chicago continues to lead the world in exploration of the inner space/outer space frontier. It's a

place of great talent, diversity, creativity and intellectual excitement."

The cosmological frontier is as much about experiments and data as it is about crazy and cool ideas, he said. "The scientists and engineers at Fermilab build incredible machines—devices of unprecedented precision, sensitivity, sophistication and complexity.

"The physicists recognize that in addition to smashing particles in a lab, they can attack deep mysteries of the nature of time, space, matter and energy by using their powerful tools to study the cosmos. This is pushing technology, literally, to the limits—the smallest and biggest things, the farthest and earliest events, the densest and emptiest places, the bits and pieces of space and time themselves."

Hogan's University appointment includes affiliations with the Kavli Institute for Cosmological Physics and the Enrico Fermi Institute, where he began his research career in 1980. He will spend 75 percent of his time at Fermilab and 25 percent at the University. Nevertheless, the University will provide 50 percent of his salary as part of its commitment to operating Fermilab through the Fermi Research Alliance.

He is currently a member of two international scientific collaborations: the Large Synoptic Survey Telescope (LSST), and the Laser Interferometer Space Antenna (LISA). The LSST is a proposed 8.4-meter telescope that will image faint astronomical objects thousands of times across the entire sky, including exploding stars and potentially hazardous near-Earth asteroids.

Expected to launch in the next decade, the satellite-based LISA mission will explore and measure the early universe using gravitational waves. These waves, never directly detected, are predicted in Einstein's theory of general relativity. Hogan also is pursuing theoretical studies of techniques for probing the quantum nature of space time directly in the laboratory.

Hogan earned his bachelor's degree in astronomy, with highest honors, from Harvard University in 1976, and his Ph.D. in astronomy from King's College at the University of Cambridge, England, in 1980. He was an Enrico Fermi Fellow at the University of Chicago in 1980-81, a National Science Foundation Postdoctoral Fellow at Cambridge in 1981-82, and a Bantrell Prize Fellow in Theoretical Astrophysics at the California Institute of Technology from 1982-85.

Hogan joined the University of Arizona faculty in 1985, followed by the University of Washington in 1993. At Washington, he served as chair of the Astronomy Department for six years, as Divisional Dean of Natural Sciences for one year and as Vice Provost for Research for more than three-and-a-half years.

His honors include an Alexander von Humboldt Research Award and an Alfred P. Sloan Foundation Fellowship. He also is the author of The Little Book of the Big Bang. Published in 1998 by Springer-Verlag, the book has been translated into six languages.

Fermilab is a DOE Office of Science national laboratory, operated under contract by the Fermi Research Alliance, LLC. The DOE Office of Science is the nation's single-largest supporter of basic research in the physical sciences.