

Dark Energy and the Runaway Universe

Dr. Alex Filippenko

May 7, 2008, 10:00 a.m.

Lower Level Classroom Chandler Building

World-renowned astronomer and prize-winning professor of astronomy at the University of California, Berkeley, Alex Filippenko, explores some of the mysteries of the universe at a special lecture at the Santa Barbara Museum of Natural History. Filippenko discusses observations of very distant exploding stars called super-novae that provide intriguing evidence that the expansion of the universe is now speeding up. Over the largest scales of space, the universe seems to be dominated by a repulsive “dark energy” of unknown origin, stretching the very fabric of space itself faster and faster with time.

This lecture, presented in May of 2007, was delivered to a general audience as part of the Las Cumbres Observatory Lecture Series. Dr. Filippenko presents a lecture aimed at all ages and levels of scientific interest. Anybody with an interest in our universe will enjoy this lecture. His course for the Teaching Company, “Understanding the Universe: An Introduction to Astronomy” was released in a 2nd edition in 2007.

Dr. Filippenko’s research accomplishments, documented in more than 500 scientific publications and 600 abstracts and astronomical circulars, are among the most



highly cited in the world. He has been recognized with several major awards, including the 1992 Newton Lacy Pierce Prize of the American Astronomical Society, the 1997 Robert M. Petrie Prize of the Canadian Astronomical Society, and the 2007 Richtmyer Memorial Award of the American Association of Physics Teachers. He was a Guggenheim Fellow in 2001 and a Phi Beta Kappa Visiting Scholar in 2002.

Science magazine credited Professor Filippenko and his international team of astronomers with the top “Science Breakthrough of 1998” for research on exploding stars (supernovae), which shows that the universe is expanding at an accelerating rate, propelled by mysterious “dark energy”; he received a share of the 2007 Gruber Cosmology Prize for this discovery. Professor Filippenko also leads the world’s most successful robotic search for exploding stars.

Alex Filippenko is Professor of Astronomy at the University of California, Berkeley. He received his Bachelor’s degree in Physics from the University of California, Santa Barbara, and earned his Ph.D. in Astronomy from the California Institute of Technology.