

Physics Centennial Speaker Series

UC DAVIS
DEPARTMENT OF PHYSICS

Rocky Kolb

DISTINGUISHED SERVICE PROFESSOR AND CHAIR
DEPARTMENT OF ASTRONOMY AND ASTROPHYSICS
UNIVERSITY OF CHICAGO

TUESDAY, MAY 5, 2009, 7:00PM

123 SCIENCES LECTURE HALL



Mysteries of the Dark Universe

Ninety-five percent of the universe is missing! Astronomical observations suggest that most of the mass of the universe is in a mysterious form called dark matter and most of the energy in the universe is in an even more mysterious form called dark energy.

Unlocking the secrets of dark matter and dark energy will illuminate the nature of space and time and connect the quantum with the cosmos.

SAVE THE DATE: TUESDAY, MAY 5, 2009

Edward W. Kolb (known to most as Rocky) is the Arthur Holly Compton Distinguished Service Professor of Astronomy & Astrophysics and chair of the Department of Astronomy & Astrophysics at the University of Chicago, as well as a member of the Enrico Fermi Institute and Kavli Institute for Cosmological Physics. In 1983 he was the founding head of the Theoretical Astrophysics Group and in 2004 the founding director of the Particle Astrophysics Center at Fermi National Accelerator Laboratory in Batavia, Illinois. Kolb is a fellow of the American Academy of Arts and Sciences and a fellow of the American Physical Society. He was the recipient of the 2003 Oersted Medal of the American Association of Physics Teachers and the 1993 Quantrel Prize for teaching excellence at the University of Chicago.

Professor Kolb is a celebrated communicator of science and has enthralled audiences at all levels, from school students to world leaders. Kolb was founding director of the first research center devoted to the connections between particle physics and cosmology (the Particle Astrophysics Center at the Fermi National Accelerator Laboratory in Batavia, Illinois) and is co-author of *The Early Universe*, a standard textbook on the subject. Kolb has won several types of recognition, from his teaching awards at the University of Chicago to the Emme Award of the American Astronautical Society for his book for the general public entitled *Blind Watchers of the Sky*.

He is renowned for theoretical research at the interface of particle physics and cosmology. He has made fundamental contributions to our understanding of why there is more matter than antimatter in the universe, proposed new ideas for what makes up the dark matter, and established constraints from astrophysical phenomena on the possible properties of elementary particles. Kolb is also known for his innovative thinking about dark energy, cosmic inflation and the nature of entropy in the universe.

Professor Kolb has appeared in several television productions, most recently interviewing Stephen Hawking for the Discovery Channel. He can also be seen in the IMAX film *The Cosmic Voyage*, released in the summer of 1996.



The UC Davis Physics Centennial series is sponsored by donations from the physics faculty and emeriti, and funds from the Office of the Chancellor and Provost, and the Office of the Dean of the Division of Mathematical and Physical Sciences.