

James R. Neff Public Lecture

KANSAS STATE
UNIVERSITY

Department of Physics

2011 Nobel Prize Winner

Adam Riess

SUPERNOVAE AND THE DISCOVERY OF THE ACCELERATING UNIVERSE

October 27, 4:30 p.m.

Hemisphere Room, Hale Library

Kansas State University

Refreshments to be served at 4:00 p.m.



In 1929 Edwin Hubble discovered that our Universe is expanding. Eighty years later, the Space Telescope which bears his name is being used to study an even more surprising phenomenon, that the expansion is speeding up. The origin of this effect is not known, but is broadly attributed to a type of "dark energy" first posited to exist by Albert Einstein and now dominating the mass-energy budget of the Universe. I will describe how our team discovered the acceleration of the Universe and why understanding the nature of dark energy presents one of the greatest remaining challenges in astrophysics and cosmology.

Riess is in Space Studies at Johns Hopkins and distinguished astronomer at the Space Telescope Science Institute. He received his BS in Physics from MIT in 1992 and a Ph.D. from Harvard in 1996. In 2011, he was co-winner of the Nobel Prize in Physics and awarded the Albert Einstein Medal for his leadership in the High-z Supernova Search Team's discovery that expansion rate of the universe is accelerating. This was named by Science magazine in 1998 as "Breakthrough Discovery of the Year."