



Two UChicago scientists garner Heineman Prize for Astrophysics

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The University of Chicago's Edward Kolb and Michael Turner share the 2010 Dannie Heineman Prize for Astrophysics, which the American Institute of Physics and the American Astronomical Society jointly award.

Kolb and Turner are cited "for their joint fundamental contributions to cosmology and their development of the field of particle astrophysics, which have resulted in a vibrant community effort to understand the early universe."

Kolb, the Arthur Holly Compton Distinguished Service Professor and Chairman of Astronomy & Astrophysics, focuses his research on understanding the physical processes that occurred in the very earliest moments of the big bang. In these very early moments, the density, energy and pressure of the universe resembled the conditions obtained in the collisions of particles at high-energy accelerators.

Turner, the Bruce V. and Diana M. Rauner Distinguished Service Professor in Astronomy & Astrophysics, applies modern ideas in elementary particle theory to cosmology and astrophysics. His work on inflation showed how quantum fluctuations seeded galaxies and other structures in the Universe and he predicted the existence of the mysterious dark energy that is causing the Universe to accelerate. The National Academy report he led, Connecting Quarks with the Cosmos, laid out the vision for the field of particle astrophysics and cosmology.

Kolb and Turner wrote the handbook for the field, their monograph entitled The Early Universe, and initiated the Fermilab astrophysics group which has grown to a vibrant set of activities that link the University and Fermilab, including the Sloan Digital Sky Survey, the Dark Energy Survey, and the Pierre Auger Observatory. Kolb and Turner, along with the late David Schramm, the Louis Block Professor in Astronomy & Astrophysics, helped to pioneer this field and make Chicago one of the world centers of cosmology.

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