

Two Theoretical Physicists Share Cosmology Prize

At the Smithsonian Institution in Washington, DC, this month, **Alan Guth** and **Andrei Linde** are receiving the 2004 Cosmology Prize of the Peter Gruber Foundation. This annual award recognizes scientists who have made groundbreaking contributions in cosmology. The prize is sponsored jointly by the foundation, which is based in St. Thomas, US Virgin Islands, and the International Astronomical Union in Paris. Guth and Linde are each receiving a gold medal and will split the purse of \$200 000.

DONNA COVENEY, MIT



Guth



Linde

The prize honors Guth, Victor F. Weisskopf Professor of Physics and Margaret MacVicar Faculty Fellow at MIT, and Linde, professor of physics at Stanford University, for “their development of fundamental ideas of cosmic inflation, which has been one of the dominant themes of cosmology for more than two decades.” The citation adds that “the original concept of inflation and its many variations, including chaotic inflation, proposed and developed by Guth and Linde, have led to a revolution in our approach to studying cosmology and to understanding the history of the universe.”

Inflationary theory describes the early stages of the universe and its structure. Although models of inflationary cosmology were considered in the 1970s by other scientists, in 1981, Guth “pulled the ideas together and pointed out the cosmological problems solved by inflation,” says the citation. He and others, though, recognized some shortcomings in his model. One year later, Linde, in the Soviet Union, improved on Guth’s proposal by providing a model he called new inflation.

He went on to propound other promising versions of inflationary theory, such as the chaotic inflationary universe scenario and the theory of eternal chaotic inflation. Guth and Linde’s original ideas, spanning more than 20 years, says foundation chair Peter Gruber, “have profoundly changed the field of cosmology.”

AIP Gemant Award Goes to Friedman

The American Institute of Physics has named **Alan Friedman**, director of the New York Hall of Science, as the winner of its 2004 Andrew W. Gemant Award.

AIP is honoring Friedman for his “efforts to make science understandable to a large audience and for his vision and leadership within the museum community.” According to the citation, his “understanding and love of physics inform his creative work and have insured that physics has become more deeply embedded into human culture.” The institute also noted that his work has “earned him the reputation of being one of the most knowledgeable and thoughtful practitioners of informal science education.”



Friedman

Zeki Wins King Faisal Science Prize

The King Faisal Foundation in Riyadh, Saudi Arabia, announced in January that **Semir Zeki** is the winner of this year’s King Faisal International Prize for Science (Biology). He received a certificate that is handwritten in Diwani calligraphy, a gold medal, and a cash prize of 750 000 Saudi Arabia riyals (about \$200 000).

Zeki, professor of neurobiology at University College London, was honored for his work on the organization of the visual brain. His contributions, said the citation, have had a “tremendous impact on the biology of vision.” The citation added that Zeki was “the first to show that the visual brain con-

sists of different areas that are functionally specialized to process and perceive different attributes of the visual scene.” His subsequent studies have revealed that “the visual brain perceives different attributes such as motion and color at different times, leading to the now widely accepted theory of temporal asynchrony in vision, which maintains that the visual consciousness consists of many different micro-consciousnesses that are distributed in space and time.”

The King Faisal International Prize for Science was first awarded in 1984. Science prizes rotate annually; next year’s topic will be physics.

Killeen Is AGU’s President-Elect

The American Geophysical Union has a new president-elect: **Timothy Killeen**, director of the National Center for Atmospheric Research in Boulder, Colorado, and a senior scientist at its High Altitude Observatory. He becomes president-elect on 1 July, and in 2006 will succeed **John A. Orcutt** (Scripps Institution of Oceanography), who becomes president this year.

Killeen has a BS in physics and astronomy (1972) and a PhD in atomic and molecular physics (1975), both from University College London. He was at the University of Michigan, Ann Arbor, for more than 20 years, first as a researcher and professor of atmospheric, oceanic, and space sciences and then as director of the university’s space physics research laboratory and associate vice-president for research. In 1992, he was a visiting senior scientist at NASA’s Goddard Space Flight Center in Greenbelt, Maryland.

Killeen says he is “honored to have been nominated and elected to serve the AGU,” which, he says, is “the preeminent professional society representing more than 40 000 geoscientists worldwide.” He adds that “the next several years will be both challenging and exciting as we learn more about how the Earth system



Killeen

UCAR