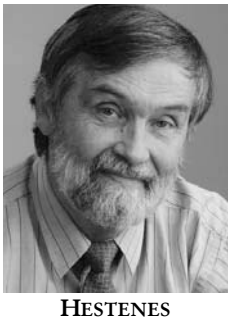
Educators Honored by AAPT

The 124th meeting of the American Association of Physics Teachers, held in Philadelphia in January included an awards ceremony at which the following individuals were honored for their contributions to physics education.



HESTENES

AAPT presented the Oersted Medal, the society's most prestigious award, to **David Hestenes**, a professor of physics and astronomy at Arizona State University. AAPT recognized Hestenes for his "contributions both to physics education research and to the training of teachers of introductory physics." In accepting the award, Hestenes gave a talk entitled "Reforming the Mathematical Language of Physics."

Jordan Goodman, who chairs the physics department at the University of Maryland, College Park, received AAPT's Richtmyer Memorial Lecture Award. His award talk was entitled "Neutrinos, Dark Matter, and the Cosmological Constant: The Dark Side of the Universe."

Distinguished Service Citations were presented to **Joseph Drenchko** (Syracuse University), **John Fitzgibbons** (Syracuse University), **Harry Knowles** (Metrologic Instruments Inc), **David Ohlde** (Pratt Community College in Kansas), and **William Ploughe** (emeritus professor at Ohio State University).

Young International Scientists Garner New Award

In January, the Alexander von Humboldt Foundation in Bonn, Germany, presented its first Sofja Kovalevskaja Award to 29 researchers from outside Germany. According to the foundation, the award is "aimed at exceptionally well-qualified, up and coming, foreign scientists . . . generally aged up to 35 years." Each of the winners received up to 1.2 million euros (about $1 million) to conduct their research projects at German institutions of their choice for three years. Of the recipients, the following 18 work in physics-related fields.

Tiziana Boffa Ballaran will be investigating the nature of local distortions that arise in a crystal when atoms with one size and charge are replaced by atoms with different size and charge. She is pursuing this work while visiting the University of Bayreuth.

Stephane Charlot plans to examine the formation and evolution of galaxies, in particular by interpreting galaxy spectra in large-scale observation projects. He will be at the Max Planck Institute for Astrophysics in Garching and at the University of Munich.

At the Dresden University of Technology, **Volker Deckert** will be using near-field optical techniques to obtain data on the composition of materials with very high spatial resolution.

Michael Feiginov will be conducting research on the physics of semiconductor nanostructures at terahertz frequencies and on the characterization methods of biological cells at those frequencies. He is conducting this work at the Darmstadt University of Technology and at the Chemnitz University of Technology.

At the Free University of Berlin, **Stefan Hecht** will be using state-of-the-art tools to spatially arrange single synthetic molecules and to specifically induce local chemical reactivity, thereby creating nanosized patterns.

Daniel Hofstetter will be working at the University of Ulm on the development and characterization of quantum cascade lasers in the near- to mid-infrared wavelength range.

At the University of Frankfurt and the Research Center Jülich, **Judith H. Klein-Seetharaman** will be examining membrane receptor proteins in relation to their involvement in the many vital cellular processes.

While visiting the University of Karlsruhe, **Yuriy Makhlin** plans to develop quantum computers based on superconducting nanoelectronics.

At the Max Planck Institute of Mathematics in Bonn, **Matilde Marcolli** intends to develop gauge theory, noncommutative geometry, and number theory with applications to mirror-symmetry, string theory, and the fractional quantum Hall effect.

Using a variety of optical spectroscopic techniques, **Kawon Oum** plans to do kinetic studies of large organic radicals in supercritical media to learn about the solvent effects on kinetics in those media. She is conducting this research at the University of Göttingen.

Maxim Polyakov is undertaking a project at the University of Bochum to gain a deeper insight into the quark and gluon structure of nucleons.

While visiting the University of Düsseldorf, **Alexander Pukhov** will be investigating laser-plasma physics at relativistic intensities with applications to fusion targets and new sources of shortwave and nuclear radiation.

Luis Santos will be studying different phenomena related to dilute ultracold atomic gases, in particular Bose–Einstein condensation. He is carrying out this work at the University of Hannover.

Working with the material chemistry group at the Aachen University of Technology (RWTH), **Jochen Schneider** will be researching the effects of impurities on the structure, evolution, and properties of thin films.

In an effort to determine how memories are created, **Greg Stuart** intends to address the cellular mechanisms that underlie changes in the strength of connections between nerve cells. He is performing this research at the University of Freiburg.

The uniformity, simplicity, and versatility of potential fundamental and applied aspects of nanoengineered core-shell structures will be examined by **Gleb Sukhorukov** at the Max Planck Institute of Colloids and Surfaces in Potsdam.

Grigori Vajenine will be researching the preparation and characterization of new metal nitrides using nonisothermal nitrogen plasma. He is conducting this work at the Max Planck Institute for Solid-State Research in Stuttgart.

At the University of Kaiserslautern, **Zhong Zhang** plans to investigate the long-term behavior of short-fiber, particle-reinforced polymer composites at different environmental temperatures.

Franklin Medals to Be Awarded

This month at a ceremony in Philadelphia, the Franklin Institute is bestowing the Franklin Medals and Bower Awards for 2002 on eight