

officials at the departments of Homeland Security and Justice. While the science and technology communities have long been concerned about the problems the Visas Mantis restrictions have caused, Atkinson said, government officials concerned with security have been worried about just that: security. (See the article by Amy Flatten, PHYSICS TODAY, February 2005, page 49.)

"It is a balance," he said. "There is much to be appreciated about the changes, but there is more to be done."

**Jim Dawson**

## Nobelist Garners Religion Prize

**C**harles Hard Townes is this year's winner of the Templeton Prize for Progress Toward Research or Discoveries About Spiritual Realities. The prize comes with \$1.5 million—an amount that purposely exceeds the Nobel Prize purse. He joins Mother Teresa and Aleksandr Solzhenitsyn as recipients of both the Templeton and Nobel Prizes.

In 1964, Townes shared the Nobel Prize in Physics for his work in quantum electronics, which led to the invention of masers and lasers. That same year, a talk he gave at Riverside Church in New York City launched a parallel, informal career as an advocate for the convergence of science and religion.



**Townes**

"Early in the game, I was willing to speak up about the interactions between science and religion, and what they could learn from each other," says Townes. "Science tries to understand how the uni-

verse works. Religion tries to understand the purpose. Is there a purpose? What is it? The structure must be arranged for that purpose." In both religion and science, he adds, "we use our intuition, logic, experiments, observations, emotions, inspiration, even revelation, to try to understand."

Townes points to the missing matter in the universe and to human consciousness and free will as holding mysteries. Above all, he says, "science and religion need to be talking openly with each other, and trying to understand their consistencies or inconsistencies. And where there are inconsistencies or mysteries, we must work to understand why."

Townes, who turns 90 this year, is an active member of the University of

California, Berkeley, physics department. His current focus is on using infrared telescopes to watch stars change; he also supports the search for extraterrestrial life. Townes says he will give away most of his Templeton award money, with the largest chunk to go to his alma mater, Furman University in Greenville, South Carolina.

**Toni Feder**

## No Leaky Pipeline for Women in Physics, but Discrimination Persists

**T**he pipeline of women in US physics academe is not as leaky as is commonly supposed, according to a recent report by the American Institute of Physics.

Rather than women leaving physics throughout the path to a full professorship, AIP finds that attrition occurs mainly between high school and college: Nearly half of high-school physics students are women, but in 2003, women earned only 22% of physics bachelor's degrees. At more advanced career stages, the report says, "women are represented at about the levels we would expect based on degree production in the past. There appears to be no leak in the pipeline at the faculty level in either physics or astronomy."

"The [notion of a] leaky pipeline has been around for awhile," says report author Rachel Ivie, "and you would expect to find evidence for it. We don't. And it did surprise me."

Among entering physics PhD students in the years 1981–97, men and women dropped out in similar proportions. In 2003, women earned a record 18% of physics PhDs. From 1985 to 2002, the fraction of PhD-granting physics departments that counted women among their faculty members rose from less than half to more than three-quarters.

Still, women haven't achieved equality in physics. Across all employment sectors, women with comparable experience working in the same sector as men earn \$3050 less a year on average. And while the 18% of new tenure-track hires in physics in 2003–04 who were women was commensurate with supply, the percentages were higher for women hired for temporary (20%) and part-time (22%) work. Despite improvements, physics, along with engineering, is the slowest among the sciences to attract more women.

The representation of minority women in physics remains tiny. In the period 1976–2003, only 35 African

American and 57 Hispanic women earned physics PhDs in the US. The total number of US physics PhDs awarded annually now exceeds 1100.

Although the data poke holes in the leaky pipeline theory, says Ivie, "there are other problems. A lot of women have experiences that seem not to fit with our data. The issue of discrimination is still there."

The report, *Women in Physics and Astronomy, 2005*, may be obtained free of charge from AIP, Statistical Research Center, One Physics Ellipse, College Park, MD 20740; e-mail stats@aip.org; website <http://www.aip.org/statistics/trends/gendertrends.html>.

**Toni Feder**

## News Notes

**New NASA head.** The White House has nominated Michael Griffin, head of the space department of the Johns Hopkins Applied Physics Laboratory in Maryland, to be NASA's 11th administrator. If confirmed, he will succeed Sean O'Keefe, who stepped down in February.

Griffin was NASA's chief engineer and associate administrator of exploration under former President George H. W. Bush. Later he moved to Orbital Sciences Corp in Virginia, and then was president of In-Q-Tel, the CIA's nonprofit foundation that invests in companies developing technologies with national security applications (see PHYSICS TODAY, January 2004, page 25).

Griffin appears to have bipartisan support and is expected to fly through his congressional confirmation hearings. Last year, he gave evidence to Congress in favor of the president's Moon/Mars vision, but he questioned support for the *International Space Station* and the space shuttle. "Circling endlessly in lower Earth orbit does not qualify as a theme" for human space flight, he said.

Initial reactions from scientists are also positive—not least because Griffin comes from their ranks. He has a bachelor's in physics, a PhD in aerospace engineering, and five master's degrees. Louis Lanzerotti of Lucent Technologies' Bell Labs, who recently chaired a National Research Council committee on servicing the *Hubble Space Telescope*, says Griffin "is an ideal choice



**Griffin**