

education would have to be a collaborative effort, she said, and getting education and physics faculty members to work together would be critically important. "Physics departments and education departments have traditionally had trouble working together and, as a result, physics courses are not designed for teachers and education courses for science teachers are taken out of context."

Franz was in the process of hiring a new education and outreach director, and Stein was one of the candidates. "He had run a statewide collaborative program on teacher education through Colorado State University, so he had the right kind of experience to develop this program." Franz hired Stein, and a management team including Jack Hehn of AIP and John Layman and Warren Hein of AAPT was formed.

PhysTEC's goal, Stein said, is to create "better-prepared science teachers who are committed to student-centered, inquiry-based, hands-on approaches to teaching from the moment they hit the classroom. Teachers tend to teach the way they were taught, and we need to break that cycle and create a new model."

"Our vision is that, as a result of this program, all students will choose to take at least one physics course before they graduate from high school," Stein said.

JIM DAWSON

News Notes

Software pro leads Bell Labs. The appointment of Jeffrey Jaffe to replace William Brinkman as Bell Labs research vice president is in line with the redefinition of parent company Lucent Technologies. In the wake of recent financial losses, Lucent is narrowing its focus to Internet infrastructure and wireless technology. (See PHYSICS TODAY, October 2001, page 26.)

Jaffe took the reins on 1 October.

His specialty is developing software and bringing it to market. Before joining Lucent in 2000, where he has been involved in commercializing new technologies, Jaffe worked at IBM for 16 years. He



JAFFE

has also advised the US government on Internet issues, including serving in 1997 on an advisory committee to President Bill Clinton's Commission for Critical Infrastructure Protection.

Brinkman had been at Bell Labs since 1966, except for a three-year stint at Sandia National Laboratories in Albuquerque, New Mexico. He will continue to serve as an adviser to Bell Labs, and in January he begins a term as president of the American Physical Society.

UK research council chiefs. John O'Reilly is the new head of the Engineering and Physical Sciences Research Council, which, with an annual budget of £467 million (\$677 million), is the largest of seven UK research funding agencies. Before moving to the EPSRC, O'Reilly headed the department of electronics and electrical engineering at University College, London. He began his four-year term last month, succeeding Richard Brook, who is now director of the Leverhulme Trust, a private foun-

EPSRC



O'REILLY



GOODFELLOW

BBSRC

dation that funds research using income largely from its shares in Unilever PLC.

The Biotechnology and Biological Sciences Research Council, which funds some multidisciplinary research involving UK physicists, is also getting a new chief executive officer. In January, Julia Goodfellow, currently head of the University of London's school of crystallography at Birkbeck College, will become the first woman to hold the job. She will replace Ray Baker. The BBSRC has an annual budget of £250 million.

Researchers innovate in education.

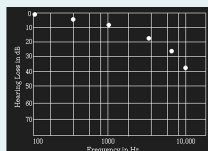
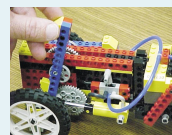
Physicists appear to be taking a leading role in improving science education: They won three of seven NSF Director's Awards for Distinguished Teaching Scholars. The new awards recognize contributions in research and teaching, and each comes with \$300 000 over four years for awardees to pursue activities aimed at promoting science and engineering education for both majors and nonmajors.

Eric Mazur, a condensed matter physicist at Harvard University, will use his award to expand materials for his popular peer-instruction method. Eugene Stanley of Boston University, known for his research on complex systems, will explore means to bring forefront research into introductory science courses. Carl Wieman, an atomic physicist at the University of Colorado at Boulder and one of this year's Nobel Prize winners, aims to

Web Watch

<http://www.physics.fsu.edu/~users/rikvold/info/legostuff.html>

Per Arne Rikvold is a theorist who studies materials and condensed matter at Florida State University. "Just for fun," as he puts it, he has developed **Some Physics Projects with LEGO**. The projects, which he describes on his Web page, involve using LEGO® pieces to build steam-powered cars and robots.

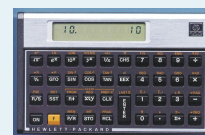


<http://www.neurophys.wisc.edu/animations>

The department of neurophysiology at the University of Wisconsin-Madison has produced a set of audio files that demonstrate what it's like to hear the world (actually, Garrison Keillor) with damaged cochleas. The files are available on a Web page that also offers **Animations of Processes within the Ear**.

<http://www.hpmuseum.org>

David Hicks's fascination for Hewlett-Packard calculators began in 1972 when he was 13 years old. It has continued ever since. In 1995, he began building **The Museum of HP Calculators**, a Web site that describes HP calculators in exhaustive, loving detail.



To suggest topics or sites for Web Watch, please e-mail us at ptwww@aip.org.

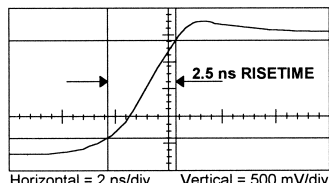
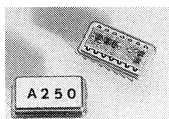
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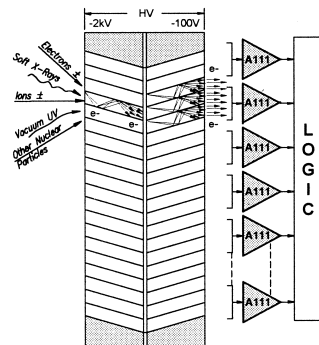
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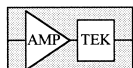
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The other recipients of the new awards are Arthur Ellis, a chemist at the University of Wisconsin-Madison; Leah Jamieson, an electrical and computer engineer at Purdue University; Gretchen Kalonji, a materials scientist at the University of Washington, Seattle; and Joseph O'Rourke, a computer scientist at Smith College.

Online digests. The *Virtual Journal of Quantum Information* and the *Virtual Journal of Applications of Superconductivity* debuted this past summer, joining the series of online topical digests launched last year by the American Institute of Physics and the American Physical Society. The virtual journals cull relevant articles from some 50 publications by 15 publishers; sources include AIP and APS journals, *Nature*, and *Science*. Abstracts are posted on the Web (see <http://www.virtualjournals.org>), with full texts of the original articles accessible free to subscribers of the source journal, and for a fee to others.

David DiVincenzo of IBM's T. J. Watson Research Center is the founding editor of *VJQI*, and John R. Clem of Ames Laboratory at Iowa State University is at the helm of *VJAS*.

Degrees down, enrollments up. The number of students receiving physics bachelor's degrees in the US has reached a 40-year low, the number of master's degrees conferred from master's-only granting institutions has dropped by half since the early 1990s, and PhD production has fallen five years in a row. But there is evidence that the educational pipeline is expanding, according to a new report from the American Institute of Physics. Comparing enrollment data from the fall of 1999—the most recent year available—with the previous year, the report found that enrollments for both first-year graduate students and junior-level physics majors were up 4%. The *2001 Enrollment and Degrees Report* is available free from the American Institute of Physics, Statistical Research Center, One Physics Ellipse, College Park, MD 20740-3842; e-mail stats@aip.org; Web <http://www.aip.org/statistics/trends/undtrends.htm>. ■