"I wish there was a Promise when I was in graduate school," says Elaine Lalanne, a research scientist at UMBC's Center for Advanced Studies in Photonics Research and the first African American woman to obtain a PhD in physics from the New Jersey Institute of Technology. Lalanne's advice to minority students facing challenges in completing their PhD: "Don't isolate yourself. Seek out support mechanisms, like Promise. Go to conferences. Seek help even on the Internet. There is light at the end of the tunnel."

**Jermey N. A. Matthews**

## news notes

**US–China nuclear cooperation.** The US and Chinese governments plan to create a center of excellence to promote nuclear security and safeguards in China and throughout Asia. A second new center will focus on radiation detection training for customs officials. Agreements for both centers were signed by representatives of the two governments during Chinese president Hu Jintao's January visit to Washington, DC.

The nuclear security and safeguards center will be built on the outskirts of Beijing and is intended as a forum for exchanging technical information, sharing practices, and training people in the operation of nuclear facilities and handling of nuclear material. The US will provide nuclear security equipment and expertise. Steven Chu, the US Department of Energy (DOE) secretary, said at the signing that the agreement represents "a major step forward in implementing the global nuclear security outlined by our two presidents at the Nuclear Security Summit last April."

The radiation detection training center will be in Qinhuangdao, about 300 km east of Beijing.

The centers represent a "vehicle for building a culture of security," says Damien LaVera, a spokesman for the National Nuclear Security Agency, a semiautonomous agency within DOE. **TF**

OFFICIAL WHITE HOUSE PHOTO BY CHUCK KENNEDY

**Tevatron countdown.** Hopes among particle physicists to extend the life of the proton–antiproton collider at Fermilab through 2014 were dashed on 6 January: "Unfortunately, the current budgetary climate is very challenging and additional funding has not been identified," wrote William Brinkman, director of the US Department of Energy's Office of Science, to Melvyn Shochet, chairman of the department's High-Energy Physics Advisory Panel. So, contrary to the recommendation by a HEPAP subpanel (see PHYSICS TODAY, December 2010, page 34), the Tevatron will be turned off this fall.

Highlights from the Tevatron include the discovery of the top quark in 1995, the observation in 2006 that B mesons oscillate, and the indications last year that B-meson decays produce slightly more muons than antimuons, which may help explain the dominance of matter over antimatter. In addition, a large range of mass was excluded for the elusive Higgs boson, which recently has seemed within the machine's reach. The search for the Higgs will continue at the Large Hadron Collider (LHC) at CERN.

At a web-streamed all-hands meeting on 19 January, Fermilab director Pier Oddone stressed that the future of the lab is "very strong and very bright." Data from the Tevatron will take a few years to analyze. Beyond that, he said the lab's strategy will be to exploit the LHC and to do research and development for future machines. He estimated that about 100 jobs will be cut, not just at the Tevatron but so as to "optimize the workforce . . . for the future missions of the laboratory."

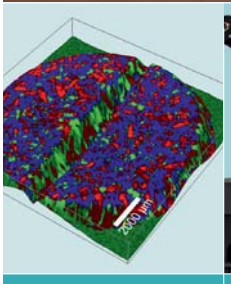
Meanwhile, on 31 January CERN announced that the LHC will continue running at 3.5 TeV per beam for an extra year, through 2012. The collider will then be shut down to upgrade it to run at its full design energy of 7 TeV per beam starting in 2014. **TF**

**Global online science fair.** How does a 10-day excursion to the Galapagos Islands sound? Or a front seat in the

B&WTEK INC.
Your Photonics Partner
Spectrometers | Lasers | Total Solutions
Miniature Fiber Coupled Spectrometers


Quest™ X
- Outstanding Performance
- High Reflective $AlMg_2$ Coated Optics
- UV-Vis-NIR Configurations Available


Glacier™ X
- Smallest TE Cooled Spectrometer in the Industry!
- Ideal for Low Light Levels
- Stabilized Baseline for Outstanding Repeatability
Call us or Visit our Website for More Information!
1-302-368-7824
www.bwtek.com

Topographic Raman image of a pharmaceutical tablet

Automated Raman-AFM system alpha500 with attached sensor for profilometry

WITec´s new True Surface Microscopy allows confocal Raman imaging guided by surface topography. The topographic coordinates obtained by an integrated profilometer are used to perfectly follow the sample surface in confocal Raman imaging mode.

The result is an image revealing chemical properties at the surface of the sample, even if it is rough or inclined.

**Confocal . Raman . AFM**
**Fluorescence . SNOM**

WITec
focus innovations

WITec Instruments Corp., Maryville, USA,
phone 865 984 4445,
**www.WITec-Instruments.com**



GOOGLE INC

control room of CERN's Large Hadron Collider? Both are among the prizes for the first international online science fair, launched by Google in January. "Traditional science fairs are often restricted by geography and therefore dictate which students can participate," says Google spokeswoman Kat Eller. "By bringing the competition online, we are able to ensure that the Google Science Fair is truly inclusive and global." However, students in Iran, Cuba, and other countries under US sanctions are not eligible.

After the contest closes on 4 April, a panel of judges, including CERN's director general Rolf-Dieter Heuer, will narrow down the entries. In July, they will choose the grand prize winner, who, in addition to the Galapagos trip, will receive a $50 000 scholarship and additional prizes from fair cosponsors CERN, *National Geographic*, the LEGO Group, and *Scientific American*. A winner chosen by the public will receive a $10 000 scholarship. For more information, or to register, visit http://www.google.com/sciencefair.

At the contest's launch, 14-year-old Tesca Fitzgerald, shown above, presented her winning entry from a previous science fair as a sample project: an algorithm that reduced the variance of an artificial-intelligence software in robots that could deliver linen and other items to hospital patients. JNAM ■

## Recently on physics today ONLINE . . .

### ▶ Singularities

In a Q&A with PHYSICS TODAY's Paul Guinnessy, emeritus director Sig Hecker of Los Alamos National Laboratory recounts his most recent visit to North Korea's Yongbyon Nuclear Scientific Research Center.

### ▶ Points of View

Eastern Michigan University's Marshall Thomsen argues that if ethics training for physics students is to have any effect, it should be both relevant and specific rather than general and abstract.

### ▶ The Dayside

In his blog, PHYSICS TODAY's online editor Charles Day writes about the lack of physicists in IBM's latest TV ad campaign, recent exoplanet discoveries, industrial innovation and employment, and a physicist character in a TV show about time-traveling dinosaurs.

**www.physicstoday.org**