great we've been able to set up a more formal structure."

Targeting kids before high school is key, Johnson adds. "A few years ago, I gave a seminar at an inner-city high school. Their eyes glazed over. After they hustled out, two young ladies snuck back into the auditorium. They didn't want their peers to know they were interested in the science. It wasn't cool to be smart. Then I gave the same talk at an elementary school. The bright young faces were all excited. That's the difference between high school and elementary school."

HOO projects will include building kaleidoscopes and telescopes, experimenting with UV and IR light, and arranging mirrors so that a laser shines on a predetermined spot. The program's planners are also developing an optics competition like the egg-drop and bridge-building competitions that MESA sponsors. And to show kids what sorts of careers are possible in optics, HOO will use posters, videos, and class visits by professionals.

The first training program for teachers and volunteers took place last month, and the experiments will be taken into communities in southern California and Washington State this fall. HOO aims to reach 40 000 kids across the US by August 2006.

After that, having used up its $1.7 million in NSF seed money, HOO is supposed to become self-sustaining. Jason Briggs, OSA program manager for HOO, says it's too early to estimate the cost of keeping the program going, but the plan is to raise funding and in-kind contributions from industry. Information about HOO will be available at the end of this month on the Web at http://www.hands-on-optics.org.

Toni Feder

Chu Named Berkeley Lab Director

"My father wanted me to be an architect. He said the competition in physics was too strong," recalls Steven Chu, who, of course, went on to win a Nobel Prize in Physics. On 1 August, Chu took the helm of the Department of Energy's Lawrence Berkeley National Laboratory, succeeding Charles Shank, who served for 15 years.

Despite stepping down, Shank says he will work with Chu on the immediate task facing LBNL: preparing a bid for the University of California to retain the management contract for the lab. UC has run LBNL since the lab's creation in 1931. But largely because of security breaches at DOE's weapons labs in Los Alamos and Livermore, it's anticipated that DOE will, for the first time, open the LBNL management contract for bids.


LBNL

Chu

At a press conference announcing Chu's appointment, UC President Robert Dynes said, "We will go into this potential competition with all resources ablazing." Although "nothing in this world is bullet proof," he added, the prestige and visibility that UC gains from Chu's being a Nobel laureate "puts us in a very strong position."

Coming to LBNL is a homecoming of sorts for Chu. He did graduate and postdoctoral research at UC Berkeley. He then spent nine years at Bell Labs—overlapping with both Dynes and Shank—before joining Stanford University's physics department, where he had been since 1987.

Among the subfields represented at LBNL are computing, nanoscience, biophysics, Earth sciences, and cosmology. The lab has a workforce of about 4000, and its annual budget is $521 million.

Chu says he was attracted to the LBNL top job because "it's a great lab. And it has a lot of pieces that I have a personal scientific interest in. I hope I can make a difference in really getting these pieces to work closely together. Opportunities like this don't come along all that often." He shared the 1997 Nobel Prize with Claude Cohen-Tannoudji and William Phillips for cooling and trapping atoms with lasers. These days, Chu's research is mainly in biophysics.

Toni Feder

Fusion Science Centers Reach Out to Other Fields

This month, the US Department of Energy launches two research centers with members from university, industry, and government labs. They are the Center for Multiscale Plasma Dynamics, headed jointly by UCLA and the University of Maryland, College Park, and the Fusion Center for Extreme States of Matter and Fast Ignition Physics, led by the University of Rochester.

The multiscale center will focus on interactions between microscale turbulence and large-scale plasma effects. "You are dealing with things that might vary by six orders of magnitude in nonlinear systems," says Bill Dorland of Maryland, center co-director with UCLA's Steve Cowley. "These kinds of challenges need new algorithms, not just new computers."

At the fast ignition center, scientists aim to trigger thermonuclear ig-

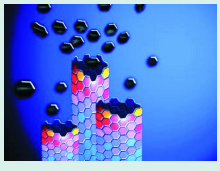
WEB WATCH

http://www.ornl.gov/sci/fed/stelnews/stelnews.html

For the past 15 years, thanks to increasing computer power, stellarator research has burgeoned. Ten stellarator projects are under way worldwide. To keep track of the latest developments, plasma physicists and others turn to ***Stellarator News***, a newsletter edited by James Rome of Oak Ridge National Laboratory.

http://visibleearth.nasa.gov

Forest fires, ocean currents, and dust storms are among the phenomena observed by NASA's fleet of remote-sensing satellites. Images of these phenomena, both real and simulated, are freely available on NASA's **Visible Earth** Web site.



http://pubs.acs.org/cen/nanofocus

NanoFocus is a new department within the online version of *Chemical & Engineering News*. With an emphasis on chemistry, NanoFocus aims to serve as a single source for news about the science, business, and policy aspects of nanotechnology.

To suggest topics or sites for Web Watch, please visit http://www.physicstoday.org/suggestwebwatch.html.

Compiled and edited by **Charles Day**

nition using two lasers. A pellet of deuterium and tritium that has been compressed by a high-energy laser will be zapped with a petawatt laser to create an electron beam that enters the pellet's compressed core and releases energy, says center director Riccardo Betti. This method of ignition, he adds, avoids the requirement of symmetry in conventional inertial fusion, as at the National Ignition Facility.

DOE is funding the centers with a total of $12 million over five years. Partners in the centers are contributing an additional 15%. Most of the money will be used to hire graduate students and postdocs, and to host workshops.

The centers were created in response to a recommendation in a 2001 National Academies of Sciences report, which said that ties should be strengthened between fusion research and other scientific fields. Traditionally, fusion research has been isolated because of its history of classified work, its focus on creating an energy source, and a tight budget. With a 30% decrease in the fusion budget a few years ago, says Dorland, "there was not a lot of free energy in the system to couple with other communities."

Both centers will pursue research through experiment, theory, and simulation. They plan to collaborate with scientists in applied math, computing, and astrophysics.

Toni Feder

News Notes

PhD revoked. As a young researcher at Lucent Technologies' Bell Labs, Jan Hendrik Schön published a scientific paper every eight days on average. But two years ago his career crashed when an investigative panel found him guilty of scientific misconduct (see PHYSICS TODAY, November 2002, page 15).

Now Schön's alma mater, the University of Konstanz in Germany, has revoked his PhD. In a review of Schön's 1998 dissertation, a Konstanz commission found mistakes but no deliberate fraud. However, the university has used a law that allows a degree to be withdrawn if the holder behaves in an "unworthy" manner. "The case of Schön is the biggest misconduct scandal in physics in the last 50 years," says physics department chair Wolfgang Dieterich. "Jan Hendrik Schön has severely damaged the credibility of science in the public eye."

Schön is appealing the revocation of his degree. **TF** ■