tor to mimic stellar fusion might also go underground. A follow-on to Gran Sasso's LUNA, the accelerator would, in addition to being shielded from cosmic rays, shoot heavy ions onto a light-ion target, thereby keeping reaction products in a narrow angle and upping the signal-to-noise ratio. "We want to simulate the origin of elements in stellar evolution," says University of Notre Dame's Michael Wiescher, one of the project's planners and a member of the underground lab committee. "The reactions are slow, guaranteeing a long lifetime for stars. We need high intensities—we don't have a million years."

All that is just an appetizer. More ideas for experiments are catching hold, fueled by recent spectacular successes in underground physics—notably the 1987 detection of a supernova explosion and strong evidence in 1998 from Super-Kamiokande that neutrinos change flavor. (See the story on page 16.)

The physics successes are also behind the renewed interest in a US underground lab. "The scope of intellectual questions is broader than what can be answered with accelerators [alone]," says Barry Barish, a high-energy physicist at Caltech who is serving on the underground lab committee. "When you move out of accelerators, you cross fields—particle and nuclear physics and astrophysics."

Alfred Mann, a particle physicist at the University of Pennsylvania, spearheaded a failed effort to get a US underground lab in the early 1980s, around the same time that Gran Sasso opened in Italy. "There was not a great deal of interest—there never is when you want to do something new," he says. Things went as far as selecting a site. But when it came time to dole out money for large-scale equipment, says Mann, the idea for an underground lab lost out to accelerator physics.

If the idea has any viability this time, says Barish, "it's because it addresses fundamental questions in several different areas."

TONI FEDER

Holt Holds onto Congressional Seat, Keeps Science in Politics

As Congressman Rush Holt (D-N.J.) looked at the final vote tallies in his unnervingly close reelection bid in November, his thoughts turned to measurement design theory and the role of noise in ballot tabulations. This was political science with a twist, because Holt is the Princeton University plasma physicist who won a seat in the House of Representatives in 1998, and he can't help but approach politics with a great deal of science. Vern Ehlers (R-Mich.) is the only other physicist in Congress.

HOLT

Holt kept his seat from New Jersey's 12th district by surviving a strong challenge from Republican Dick Zimmer, who had held the same seat for three terms in the early and mid-1990s. The 30 000 voters in the district gave Holt the victory by a mere 500 votes and, in an echo of the presidential drama in Florida, Zimmer insisted on a recount.

"Each day of the recount I gained votes and when the margin grew from about 500 to 750, he pulled the plug," Holt said of Zimmer. Holt said he has already drawn up legislation calling for a commission to come up with recommendations of ways to standardize voting procedures in federal elections. His goal, he said, is to come up "with a lower noise measurement system" for voters.

Beyond that, Holt said he wants to double federal nondefense R&D spending, make the R&D tax credit permanent, improve and expand programs for science and math education in the public schools, and rekindle the debate over the need for a progressive federal energy policy.

As he watched CNN coverage of the Bush–Gore battle in Florida, Holt explained the difference between hard science and political science: "In science you're supposed to follow the evidence wherever it leads and let the chips fall where they may. But where the chips fall is what politics is all about."

JIM DAWSON

UK Boosts Pay, Joins ESO, in Science Spending Spree

The UK government has announced substantial new money for higher education, academic salaries, and research. Over the next three years, the science budget will increase by 26% from £1.7 billion (about $2.5 billion) to £2.15 billion, while education will get an 18% increase to £6.4 billion. The majority of the new science funding will be spent on either life sciences or interdisciplinary programs. However, the Particle Physics and Astronomy Research Council (PPARC) has done particularly well compared to the last spending review three years ago, when it was the only research council that received no funding increase above inflation. Its budget will go up 20% from £194 million to £232 million by 2004. "This new funding will ensure our physicists and astronomers remain at the forefront of international research," says Ian Halliday, PPARC CEO.

Thanks to lobbying by astronomers, £10 million of the new PPARC money will go to joining the European Southern Observatory (ESO) in Chile (see PHYSICS TODAY, September 2000, page 55). "This is excellent news for UK science and lays the foundation for cutting-edge research over the next 10 years," says Mike Edmunds, chairman of the Astronomy Vision Panel, PPARC's long-term planning committee for astronomy. "British astronomers will be delighted by the government's rapid and positive response to their case."

The money will buy UK astronomers 20% of the time on the Very Large Telescope as well as time on the Atacama Large Millimeter Array being built in Chile. Despite the good news, cuts of more than £5 million a year in the UK's astronomy program will have to be made over the next 10 years to afford the £70 million joining fee that comes on top of the £12 million annual membership dues. Recommendations for the cuts will be made public in February.

PPARC also won a £26 million grant for two projects from the Department of Trade and Industry's "e-science" program. That money will fund research into the creation of Astro-grid, a virtual observatory combining astronomical data from many space- and ground-based observatories, and DataGrid, a network system for analyzing data from CERN's Large Hadron Collider.