must also pass departmental exams in four core areas and complete a dissertation. MSU has been offering Internet-based instruction since 1995 through its Virtual University; course material is posted on the Web, and homework problems are solved online, with automated feedback given. The beam physics program's Web site, http://vubeam.nscl.msu.edu, has details on how to apply.

NSF awards. On 31 August, the National Science Foundation announced awards totaling \$50 million for research in a wide range of mostly interdisciplinary areas that use, or are metamorphosing due to, advanced computer technology. The Knowledge and Distributed Intelligence program grants went to 31 groups and ranged from about \$500,000 to nearly \$3 million—the largest award went to a University of California, Santa Barbara-led project that aims to integrate autonomous sources of ecological data into a single network. Among the other topics that won KDI funding are a study (based at the University of California, Berkeley) addressing economic, legal, social, and technical aspects of intellectual property rights; simulations of and experiments involving amorphous and crystalline ice growth (University of Washington); and development of a Web-based library of mathematical functions (National Institute of Standards and Technology). After this batch of grants, the

KDI program will be discontinued, but some of the fields it covers will become part of a new governmentwide program, called Information Technology for the 21st Century, or IT2, which is scheduled to start next year.

Student rocket. Attempts to revive TERRIERS, the research satellite built by Boston University students that lost power shortly after launch on 18 May, have thus far been unsuccessful. Meanwhile, another space experiment developed by BU students has been gearing up for launch. At press time, SPECTRE—the Student-run Program for Exoatmospheric Collecting Technologies and Rocket Experiment—was set to go up on 17 September from the sounding rocket range on Wallops Island, Virginia. During its 17-minute flight, SPECTRE will measure high-energy and visible radiation and observe radiation absorption by various atmospheric constituents. The experiment was the brainchild of five BU undergraduates, who drafted the proposal in hopes of getting out of the final exam in their introductory astronomy course. In the end, the students still had to take the final, but their proposal was accepted by NASA. SPECTRE is the first of three such experiments to be completed under the space agency's Student Launch Program, which provided \$35 000 for the BU effort plus the Nike-Orion rocket that will carry SPECTRE

Web Watch

http://www.pbs.org/transistor

The 50-year history of the transistor is the subject of Transistorized! a television program and Web page produced jointly by the Public Broadcasting Service and the American Institute of Physics. The TV program airs on your local PBS station at 10 pm on 8 November.



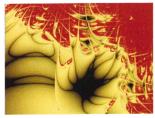
Broadcast in Canada during the 1970s, the children's television series entitled The Hilarious House of Frightenstein, featured The Professor, a manic figure who demonstrated physics experiments. In fact, the Professor was played by a real-life physics educator, Julius Sumner Miller (his obituary appeared in PHYSICS TODAY's November 1987 issue, page 144).





http://www.lboro.ac.uk/departments/ma/gallery

From the department of mathematical sciences at Loughborough University in



England comes The Gallery of Mathematics. Molecular dynamics simulations are among the exhibits on display, as are Lyapunov pictures and so-called self-referential sentences that make true statements about their alphabetical contents.

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

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