**DOE Princeton Plasma Physics Laboratory** 



# The Lure of Science Draws People to PPPL for Fusion Talk, Science Events







Driven by a desire to learn more about fusion in particular and science in general, students and adults flocked to PPPL for educational events. This year's Science-on-Saturday series, which featured eight lectures, wrapped up March 20. Among the talks was "Fusion at PPPL: Scientific Research on a New Energy Source," by PPPL Director Rob Goldston (bottom photo). It was followed by a tour of the National Spherical Torus Experiment (NSTX) taken by more than 200 of the 350 people at the talk. The tour guides were PPPL's Michael Bell, Henry Carnevale, John DeLooper, Tom McGeachen, and Hans Schneider. McGeachen (top photo, second from right) is with a tour group in the NSTX Control Room.

### **Girls Expand Their Horizons**

On March 24, about 200 female students, grades 8-12, attended the "Expand Your Horizons Mini-Conference for Young Women in Science, Mathematics, and Technology" at PPPL. The conference, hosted by PPPL's Science Education Program, the Director's Advisory Committee on Women, and the Director's Minority Advisory Committee, included talks and exhibits. Students were from area schools; presenters and exhibitors were from Bristol-Myers Squibb, the CWA Apprenticeship Program, the Engineering Education Service Center (Oregon), the Fashion Institute of Technology, FMC, Geosciences, the New Jersey Department of Environmental Protection, the New Jersey State Musuem, PPPL, Rutgers University, and Yale University. Students (middle photo) checked out fossils at the N.J. State Museum display in the Lobby.

"These events — the Science-on-Saturday series, tours, and the mini-conference — are great ways to get our message out," said PPPL External Affairs Head John DeLooper.

# **Post-Zwicker Named PPPL Science Education Head**

**P**PPL's Andrew Post-Zwicker has been appointed Head of the Laboratory's Science Education Program. As Head, Post-Zwicker is responsible for overseeing educational programs for teachers and kindergarten through college undergraduate students, as well as for implementing new educational initiatives at the Laboratory. Present programs range from comprehensive workshops for students and teachers, to the National Undergraduate Fellowship Research Program and the Science Undergraduate Laboratory Internships, to the New Jersey regional competition of the National Science Bowl® and the Science-on-Saturday lecture series.

Post-Zwicker joined PPPL's Science Education Program in 1997 as a Senior Program Leader and became Lead Scientist for the program in 2000. Since coming on board, he has created the Plasma Science Education Laboratory at PPPL, as well as the Plasma Camp and Plasma Academy programs, which are intensive summer programs for high school teachers and students, respectively. The laboratory is on the first floor in Room S-109.

### **Increase Collaborations**

Post-Zwicker's first goal as Head is to expand the Plasma Science Education Laboratory and to increase internal and external collaborations in the science education arena. "We began the Plasma Science Education Laboratory at PPPL two years ago as a unique resource for students and educators — a place where they can conduct experiments and learn firsthand about the beauty of plasmas. I'm looking forward to expanding the laboratory by better tapping into PPPL's resources — which are made up of an amazing blend of people, equipment, and expertise — and by increasing the number of partnerships we have with outside entities," he said.

After receiving a bachelor's degree in physics from Bard College in Annandale-on-Hudson, New York, in 1986, Post-Zwicker went on to receive a master's and a Ph.D. in physics from Johns Hopkins University in 1988 and 1992,



Andrew Post-Zwicker in the Plasma Science Education Laboratory.

respectively. He conducted post-doctoral research for Oak Ridge National Laboratory at PPPL and at a fusion science laboratory in Jülich, Germany. He is the Secretary-Treasurer of the American Physical Society's Forum on Physics and Society, a member of the DOE Fusion Energy Sciences Advisory Committee's Workforce Development Panel and of the American Physical Society-Division of Plasma Physics Science Education Committee, and an author on more than 30 articles in a variety of plasma physics and education journals. He also teaches a freshman writing seminar at Princeton University, "The Ethics of Human Experimentation."

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## **PPPL Hosts Regional Science Bowl® Competition**



PPPL Director Rob Goldston (seated) and PPPL physicist Daren Stotler (seated next to Goldston) serve as the moderator and science judge during the final round of the Regional Science Bowl® held in PPPL's Auditorium. The scorekeeper (standing) is Patrick Ross and the competing teams are from East Brunswick High School and High Technology High School.

Throughout the Laboratory on a recent Saturday, a wave of excitement — tinged with tension — filled the air. As the day progressed, some visitors left in defeat while others went on to victory. It was the annual Regional Competition of the National Science Bowl® hosted by PPPL and sponsored by the U.S. Department of Energy. This year's event on February 28 drew 24 teams from 17 area schools, with the East Brunswick High School team taking home the top prize.

In the double-elimination tournament, students answered multiple-choice or short-answer questions in biology; chemistry; physics; astronomy; mathematics; and general, earth, and computer sciences. Each team was made up of four students, a student alternate, and a teacher who served as an advisor and coach.

The competition proceeded smoothly, thanks in large part to the PPPL staff and friends who volunteered as scorekeepers, timekeepers, moderators, science judges, logistics planners, and Science Bowl Central staffers. "As always, we wouldn't have been able to pull off such a successful event without the help of so many PPPL staff members and friends," said Science Bowl Coordinator James Morgan, noting that this was the twelfth year for the Lab to host the bowl.

A special thanks goes to the Science Bowl volunteers: Brian Beck, Ted Biewer, Bill Blanchard, Katy Bold, Lisa Carlucci, Bill Davis, Michael Del Corso, John DeLooper, Rob Goldston, Terry Greenberg, Pamela Hampton, Eric Harkleroad, Rich Hawryluk, Felix Huang, Tom McGeachen, Dave Johnson, Ben LeBlanc, Tobin Munsat, Franco Paoletti,



Above, one of the teams confers about a bonus question.

Carol Phillips, Adriana Popescu, Andrew Post-Zwicker, Chris Ritter, Patrick Ross, Hans Schneider, John Schmidt, Rich Sharp, Dave Smith, Jef Spaleta, Daren Stotler, Patti Wieser, Lynn Yager, and Irving Zatz.

The East Brunswick High School team will go on to compete in the National Science Bowl<sup>®</sup> competition in Washington, D.C., in May. High Technology High School from Lincroft placed second and West Windsor-Plainsboro South came in third. ●



Just say NO! PPPL continues to be hard hit with bogus, forged e-mail. It is important for everyone to recognize the severity and seriousness of this problem. Employees may receive e-mail that appears to be from someone they know, or claims to be from the PPPL Mail Administrator.

The Lab has virus protection at its firewall and on its mailserver, but with each new attack, a few messages with infected attachments may get through before the virus protection is updated. Staff members should **not open any attachments** — even from someone they know — unless they were expecting the attachment. The computer

group is currently stripping all attachments with several file extensions, including .exe and .zip files. If employees expect a legitimate file with one of these extensions and it has been stripped, they should send an e-mail to the Help-desk at helpdesk@pppl.gov and the file will be restored. If employees don't know who an e-mail is from, they should DELETE IT. Concerns or questions about e-mail should be sent via e-mail to the Helpdesk. For urgent requests, please call the Helpdesk staff at ext. 2275. Please do not call technical staff directly; the Helpdesk can better manage problems centrally. Thank you for your cooperation.

## Spotlight

## Name: Bob Reed

**Position:** Computer Operator, Computer Division, with major duties in the Media Services group. Responsible for setting up video conference equipment, projectors and laptops for presentations, phone bridges, and teleconference connections and machinery.

**Quote:** I love being busy. The video conference work at PPPL really keeps me moving — each video conference is its own challenge. The Laboratory has been a really good place to work. I find the people and the environment interesting, and I believe in the research we are doing. That's one of the reasons I wanted to work here, and why I've stayed for 28 years.



**Other interests:** I enjoy traveling, especially camping. Last year, my wife and I bought a pop-up camper — we used to use tents in the early days — and we are planning a trip to Thousand Islands in Canada this September, returning through the Catskills. I also enjoy cooking and experimenting with new dishes. Recently, I made a beef burgundy stew that turned out well. And I love reading.

## Save the Date PPPL Open House Slated for June 12







**D**on't miss the PPPL Open House scheduled for Saturday, June 12. This is an opportunity for everyone at the Laboratory to highlight PPPL's work to their families, friends, and the community. Many volunteers are needed. The all-day event will feature tours of the experimental areas, hands-on science demonstrations, safety and fire fighting activities, energy and plasma-related exhibits, food, and fun. The Open House gives the community firsthand knowledge about the research being done at PPPL and a sense of the staff's excitement about working on a complex problem — fusion energy.

You can help! All employees are asked, if possible, to volunteer a few hours of their time on June 12. Tasks range from guiding tours of the scientific areas to doing demonstrations and operating exhibits to preparing and serving food. Please contact Open House Volunteer Coordinator Sue Hill at ext. 2227 or via e-mail at shill@pppl.gov.