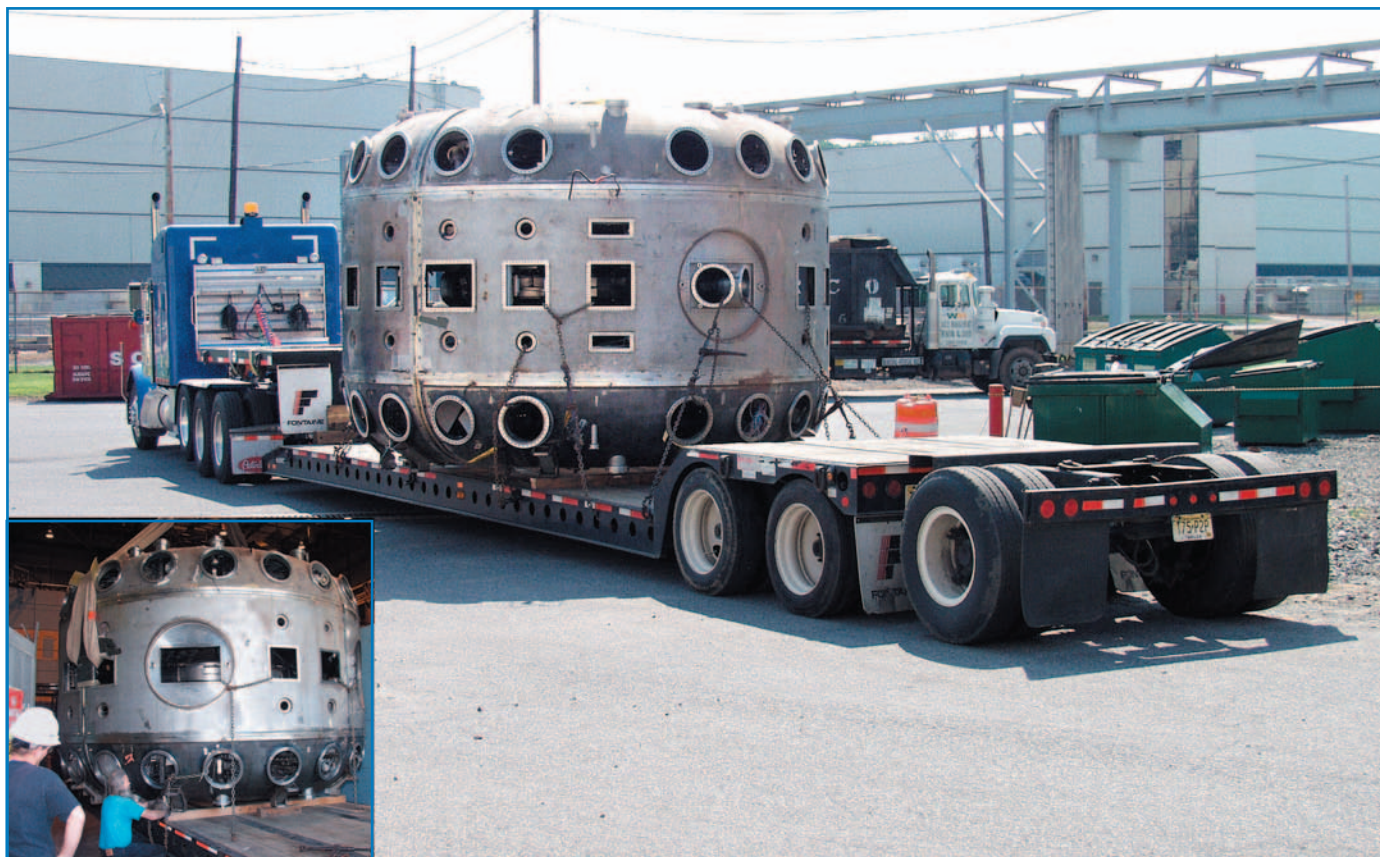


# HOTLINE

The Princeton Plasma Physics Laboratory is a United States Department of Energy Facility

## Say Goodbye to PBX-M Machine



The PBX-M vacuum vessel, loaded onto a flat-bed truck, is taken from the PPPL site. Insert shows workers securing the vessel for its journey.

**S**afely, on schedule, and within budget. That's how the team of PPPL staff and subcontractors removed the Princeton Beta Experiment-Modification (PBX-M — 1989-1994), formerly the PBX (1985-1989) and the Poloidal Divertor Experiment (PDX — 1978-1985). In June, PPPL neutral beam technicians, machine technicians, and staff from the Lab's Tech Shop, as well as from Powers Electric, completed the electrical safing and removal of components that are being stored for future use. From late June through late August, DEMCO, a subcontractor, cleared away the rest of the device, including more than 352 tons of metal that were shipped off for recycling. Above is the

final shipment — the 57,000-pound vacuum vessel — which truckers took from the PPPL site in late August. The former PDX/PBX-M test cell is now cleared to make way for the National Compact Stellarator Experiment (NCSX), which is expected to begin operations in 2007. ●

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# Grad Student Sharma Receives First Stix Prize

PPPL graduate student Prateek Sharma never met Tom Stix, but he was well acquainted with the renowned physicist and educator.

“Almost everyone in the field knew of Professor Stix,” said Sharma, recalling how he had first heard about Stix while earning a bachelor’s degree in engineering-physics at the Indian Institute of Technology in Bombay. There, he’d come across *The Theory of Plasma Waves*, the classic text authored by Stix in 1962. “His book is very famous. It is like a bible to plasma physicists,” said Sharma.

Sharma, a second-year graduate student in Princeton University’s Program in Plasma Physics, became more directly linked with Stix this summer when he was named the first recipient of the Thomas H. Stix ‘54 Plasma Physics Prize.

Stix, who died in 2001, was the founder and longtime director of graduate studies for the University’s Program in Plasma Physics and a leader in the development of plasma physics. Among his many civic activities, Stix was a chair of the American Physical Society’s Committee on International Freedom of Scientists. Last year, a fund was created in his memory to establish a prize for first and second-year graduate students studying plasma-related topics. The prize would enable international travel for conferences or research.



Prateek Sharma

“It was gratifying to see so many of Stix’s former students and colleagues contribute to make this prize possible,” said PPPL’s Greg Hammett, a Princeton University Professor and one of the organizers of the fund. “A prize that enables students at an early stage of their careers to experience the international nature of the scientific community is a good way to honor Stix’s concerns both for graduate student education and for international scientific and humanitarian issues.”

PPPL’s Sam Cohen and Roscoe White, both professors at the University, made the selection for the prize this year.

Sharma used the \$2,000 award to attend an international conference in Krakow, Poland, about particle acceleration in astrophysical objects. While in Poland, he also spent time at the Nicolaus Copernicus Astronomical Center in Warsaw, where he gave a talk about plasma physics and spent time one-on-one with several scientists. “Instituting this award is a good thing because rarely do younger graduate students get such a chance to be exposed to an international conference and meet people and interact with scientists,” said Sharma. “There are so many things you can learn.”

As a candidate for the prize, Sharma submitted a proposal outlining how he would use the award to attend the conference. “I thought it would be a good idea for me to go to the meeting to look at plasma physics from a different perspective, in particular, how it relates to astrophysics,” said Sharma. He is presently working on a project about particle heating in nonradiative accretion disks near black holes.

The conference, where talks were given in English, drew about 80 scientists. There, Sharma dined with established scientists, attended a series of talks, and soaked up new knowledge. He also presented a poster, “Collisionless Magnetorotational Instability.”

“It was a good chance for me to learn and to get inspired,” said Sharma. ●

## Simmons Named Engineering Fellow

In recognition of his exceptional engineering achievements and contributions to the engineering profession, PPPL engineer Robert Simmons was recently elected a Fellow of the American Society of Mechanical Engineers (ASME) International.

Simmons, the Systems Engineering Support Manager at PPPL for the National Compact Stellarator

Experiment (NCSX), joined the Laboratory’s staff in 1989 as a project control manager. He has been actively involved in the operation and management of complex engineering projects and the development and implementation of project management systems for more than 35 years.

Last year, Simmons received the first ASME Engineering and Technology Leadership Award, which has been named the Robert T. Simmons Leadership Award in his honor. ●



Bob Simmons

# Summer Students Abound at PPPL

More than two dozen high school and college students from near and far came to PPPL this summer to conduct research, learn about plasmas, and develop science curricula. Several college-level students spent the summer working with PPPL researchers who served as mentors. They were here through the National Undergraduate Fellowship Program (NUF), Science Undergraduate Laboratory Internships (SULI), and Pre-service Teachers (PST) programs, which are all funded by the U.S.



Department of Energy (DOE). In addition, a group of high school students attended a one-week academy run by the Lab's Science Education Program, while other high schoolers worked on projects at the Science Ed Lab or with researchers in other areas of PPPL. Below, outside PPPL's Lyman Spitzer Building, are many of this year's NUF, SULI, and PST students. At right, Pre-service Teacher program participant Riley O'Brien works at PPPL on her summer project, which included writing a curriculum module with improved methods for teaching science. The module is for elementary and secondary teachers. At top are high school students testing the solar model cars they built as part of a one-week plasma workshop. The students are from the Academy for the Advancement of Science and Technology in Bergen County. ●



# PPPL'ers Welcome New Family Additions



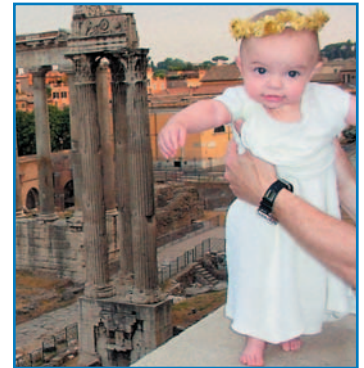
*PPPL computational scientist Jin Chen and her husband, Weixing Wang, welcomed daughter Stephanie Xiaoyang Wang on March 21.*



*Jackie (Robinson) Pursell, a budget analyst at PPPL, and her husband, Torrey, are the proud parents of daughter, Brooke, born on May 13.*

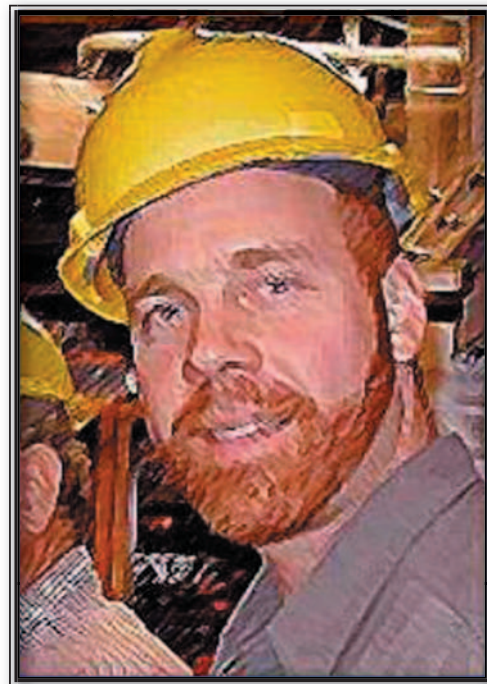


*Ryan Finn Minervini, son of Chris Minervini, a user support specialist at the Lab, and his wife, Cassie Minervini, was born on March 13.*



*Livia, daughter of PPPL's Lisa Carlucci and her husband, Franco Paoletti, was born on March 19. Here, Livia donned a toga for a visit to the Roman Forum.*

## The PPPL Artists' Colony



**Q:** Which self portrait is by a PPPL'er and which is by the famous impressionist painter Vincent Van Gogh? **A:** At left is Van Gogh's "Self Portrait with Straw Hat" and on the right is Hans Schneider's "Self Portrait with Yellow Hard Hat." Using the brushstroke feature of the Adobe Photoshop program, Hans created his masterpiece after another PPPL'er noted the striking resemblance between the Dutch artist and the PPPL engineer.

## Hotline

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