

# HOTLINE

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

## Show Them Science and They Will Come

Pollution Prevention, Take Our Daughters to Work, and Science Fair Events Attract Area Students



*In April, PPPL hosted Pollution Prevention Awareness Day, Take Our Daughters to Work Day, and a Science Fair. At top left, PPPL physicist Ed Synakowski talks to Patrick Charles Callan about the youngster's Science Fair project, "Catapult." At top right, a group discovers a plasma ball and at bottom right, young visitors have fun with an insect display during Pollution Prevention Day. At bottom left, two girls enjoy a presentation during Take Our Daughters to Work Day. (See story on page 2.)*

# PPPL Hosts Events for Area Students

In April, more than 250 students had a chance to discover that science can be fun when they participated in one of three events at PPPL — Pollution Prevention Awareness Day, Science Fair, and Take Our Daughters to Work Day.

## Pollution Prevention Awareness Day

The Pollution Prevention Awareness Day on April 18 featured an awards program for poster contest winners, as well as hands-on science demonstrations, guest speakers, and pollution prevention displays. Richard Wetherald, Senior Research Associate at the National Oceanic and Atmospheric Administration's (NOAA) Geophysical Fluid Dynamics Laboratory, presented "Greenhouse Gases and Global Warming" and PPPL Director Rob Goldston gave a talk, "Fusion Energy in the New Century." PPPL received more than 400 poster entries from students from seven area schools. The Lab also sponsored a poster contest for the children of PPPL staff. "This was the most successful PPPL Earth Week event to date. The topic of global warming is relevant today, especially as we con-

sider fusion as a potential energy source without carbon dioxide emissions," said event co-chair Tom McGeachen.

Added fellow organizer Margaret Kevin-King, "The most important message we try to get across is that Earth Day is every day, and the future of our children depends on it."

## Take Our Daughters to Work

About two dozen children came to PPPL on April 25 to see what their dads and moms do at work. The Take Our Daughters to Work Day event, sponsored by the Director's Advisory Committee on Women, included an opening talk by PPPL Director Rob Goldston, followed by time for the youngsters to spend in their parents' work environment. "It was a success. The children enjoyed juice and muffins while listening to Rob give a very energetic and interesting talk. He asked questions and had everyone involved," said Committee Chairperson Lena Scimeca.

## Science Fair

On April 23, seventeen area students exhibited their science projects during PPPL's annual Science Fair Day. The Science Fair honored the 16 winners of PPPL's Corporate Awards, who were chosen among student exhibitors at the North Jersey Regional Science Fair at Rutgers University and at the Mercer Science and Engineering Fair at Rider University. Also honored was one special visitor. The young scientists displayed their projects in the Lobby. Topics included cosmic ray detectors, silent propulsion, magnetic aqua drives, the heart and video games, and fiber-reinforced concrete.

PPPL's Mary Ann Brown, who organized the day, said, "Winning projects share the characteristics of originality, logical consistency, depth, and clear presentation, but win or lose, a project is a success when it demonstrates science can be fun and leaves the student transformed." ●



Director Rob Goldston presents, "What's Up at PPPL," to the children of Lab and DOE staff during Take Our Daughters to Work Day.

## HOTLINE

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# Furth Friends and Colleagues Offer Tributes

**M**ore than 200 friends, family members, and colleagues of Harold P. Furth gathered at PPPL on April 25 to pay tribute to the man they remembered as a powerful leader of the fusion community, the father of TFTR, a brilliant scientist, and a wonderful friend. Those close to Furth recalled, in particular, his eloquence, brilliance, and humor.

“The nicest thing about dealing with Harold is he made you smile,” said Kenneth Fowler.

Furth, Director of PPPL from 1981 to 1990, died in February. The memorial service — a celebration of Furth’s life — took place in the MBG Auditorium, where more than a dozen people offered eulogies.

“Harold led us on an amazing and wonderful adventure, and we owe him a personal debt of gratitude for this — a debt which we can only really repay to those who come after us,” said PPPL Director Rob Goldston.

N. Anne Davies, of the DOE’s Office of Fusion Energy Sciences, said, “Harold was a very special person at a very special place during a very special time.”

She noted how Furth inspired a generation of scientists younger and older than himself, both at home and abroad, and had an “absolute commitment” to the fusion program. “He left us too soon. He was a giant of fusion and I will miss him,” said Davies.



*PPPL Director Rob Goldston (left) and Tina Ludescher Furth unveiled the nameplate for the Harold P. Furth Library during the dedication ceremony.*

Professor Chuan S. Liu, of the University of Maryland, said Furth was an experimentalist who also did great theory and a scientist who wrote great poetry, while Marshall Rosenbluth, of General Atomics, described him as a brilliant, complex, fascinating per-



*Professor Chuan S. Liu*

son, friend, and scientist. “The best word to describe Harold is scintillating,” said Rosenbluth.

He went on to call Harold and Tina Furth “one of the great fusion romances.” Said Rosenbluth, “When Harold met Tina, he met his match.”

John Willis, of the DOE’s Office of Fusion Energy Sciences, read from a Langston Hughes poem about dreams, later saying, “Harold was a master at keeping our dreams alive.”

Nathaniel Fisch, PPPL Associate Director for Academic Affairs, talked about his early encounters with Furth, noting how Furth was always able to solve problems. More than 20 years ago, they were both attending a Fusion Energy Sciences Advisory Committee meeting in San Diego when they discovered a hotel mix-up that had them both booked in just one room. “Harold solved the problem. I went to another hotel,” Fisch said.

**“Harold was a very special person at a very special place during a very special time.”**

**— N. Anne Davies**

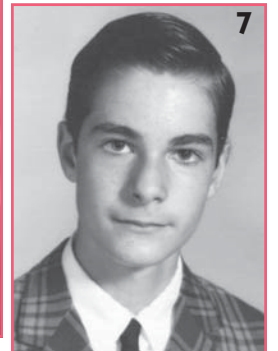
Fisch spoke of the professional debt he owes Furth, and about the many pieces Furth helped put together to bring fusion closer to reality.

The service concluded with personal remembrances touchingly delivered by Tina Ludescher Furth, followed by a dedication of the PPPL Library in Furth’s name and a reception. ●

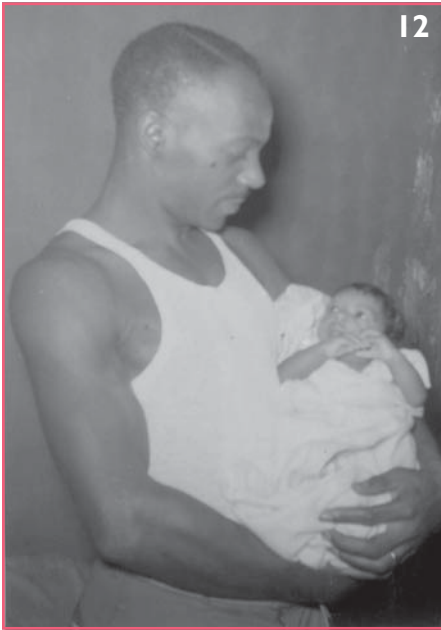


*N. Anne Davies*

# Hotline Photo Contest ...Guess Who?



*Who is with the Supremes??*



To enter the Hotline contest, match up each photo with the name of a PPPL employee and return your entry to Hotline, P. Wieser, MS-38, by Friday, May 31. The person who identifies the most photos correctly receives a gift certificate for brunch for two at Prospect House.

**Bonus:** Each person who supplied a photo for the contest gets a bonus point. Another point goes to anyone who correctly identifies the person in the bonus photo from the contest announcement. (Hint: he's not an employee but he's married to our famous PPPL photographer.)

### Hotline Photo Contest Entry Form

Return your entry to Hotline, P. Wieser, MS-38, or email [pwieser@pppl.gov](mailto:pwieser@pppl.gov) by Friday, May 31.

1 _____	11 _____
2 _____	12 _____
3 _____	13 _____
4 _____	14 _____
5 _____	15 _____
6 _____	16 _____
7 _____	17 _____
8 _____	18 _____
9 _____	Bonus _____
10 _____	

# Accolades Abound for PPPL Staff and Efforts

Employees receive awards for outreach and education efforts, environmental works, and completing paper to electronic transitions ahead of schedule. Congratulations, staff!



On April 11, PPPL's Ray Camp (left) and Mark Cropper provided six cryo shows for more than 100 second graders at the Plainsboro J.V.B. Wicoff School. During the visit, school representatives presented to Camp and Cropper a plaque recognizing PPPL's 10 years of participation in Wicoff's Math and Science Day. The Lab is one of two organizations that have taken part in the program since its inception. During the past decade, several PPPL'ers have helped with the demonstrations, including Vick Garzatto, George Martin (who started the program), Jim Kamperschroer, and Jack Hynes. ●



On April 17, PPPL received a DOE Certificate of Achievement, signed by Secretary of Energy Spencer Abraham, for successfully completing the transition from paper to electronic technical information reporting three years ahead of the DOE goal. Above are PPPL's Tony DeMeo (right) and Carol Phillips with the certificate. They were instrumental in getting the project done ahead of schedule. ●



The Lab's Maintenance and Operations Division is always mindful of saving energy, reducing utility costs, and being environmentally friendly. During the past few years, the Division replaced approximately 1,500 old light fixtures and exit signs at PPPL with more energy-efficient products, resulting in an estimated annual energy savings of \$20,000. At least 75 percent of the lighting products installed are environmentally friendlier. Because of these efforts, the Sylvania Corporation recently presented the Lab with an ECOLOGIC Certificate plaque that was crafted from virgin, old-growth timber taken from under Lake Superior. From left are Jeff Bennett, Shawn Connolly, Mark Snyder, Joe Byczkowski, Ron Koon, Garry Stevens, and Carl Potensky. ●

# PPPL Keeps Its Cool ...Cleanly and More Efficiently



**PPPL Engineer Henry Carnevale, who managed the chiller replacement project, is above with the new chillers. At right are the old chillers.**

**I**n March, the Lab replaced the trio of 390-ton chillers in the Central Plant with 530-ton chillers. The new chillers have greater cooling capacity, are more efficient, and use a non-ozone depleting refrigerant. They run year-round and are used for facility air conditioning and process cooling of the National Spherical Torus Experiment. “Eighty percent of PPPL’s facilities are cooled by



Photo by Henry Carnevale

these machines — we’ve centralized the source and minimized the environmental impact,” said Henry Carnevale, who led the five-month project.

The effort, which was completed on time and within budget, is the result of a Department of Energy mandate to eliminate chlorofluorocarbons in Department facilities by 2005. PPPL’s Central Plant chillers, circa 1978, used freon.

“The new chillers allowed us to meet this mandate, while increasing our energy savings and the capacity of the Central Plant,” Carnevale said. ●

## Communiversity 2002

Photo by Tony DeMeo



**P**PPPL provided an exhibit at Communiversity Day, the annual town-gown festival in Princeton on April 27. More than 1,000 individuals stopped by to learn more about fusion. PPPL volunteers at the exhibit included Robert Budny, Henry Carnevale, John DeLooper, Tony DeMeo, Rich Hawryluk, Dave Johnson, Hutch Neilson, John Schmidt, and Patti Wieser. Above, Budny (in red) and Neilson field questions. ●

## Transitions

### Births

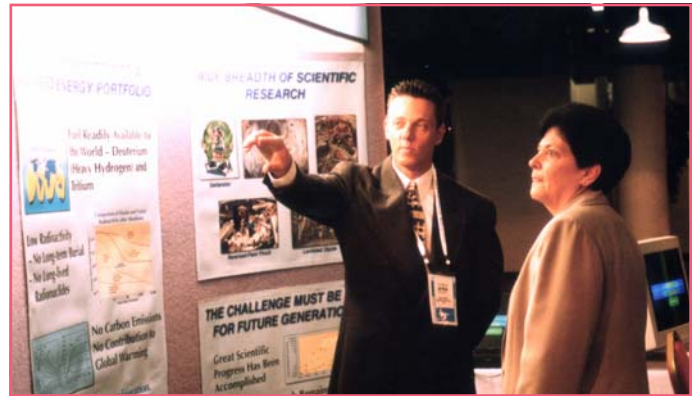
Congratulations to Wes Foraker, of Site Protection, and his wife, Dana, on the birth of their daughter, Madison, on December 15.

### New Hires

*PPPL welcomes the following people who have come on board since the beginning of the fiscal year:*

- Jim Chen** — Computational Plasma Physics
- Eliot Feibush** — Computational Plasma Physics
- Robert McDonough** — Emergency Services Unit
- John Richardson** — Emergency Services Unit
- Ravi Samtaney** — Computational Plasma Physics
- Michael Scaffiro** — Emergency Services Unit
- Steven Toughill** — Emergency Services Unit
- Mark Swanek** — ER/WM Group
- Kevin Ying** — Computer Division

# PPPL Represents Fusion Community at Energy Summit



**P** PPL represented the fusion community during the Global 8 Energy Ministers' Summit earlier this month in Detroit. PPPL's John DeLooper and James Morgan staffed a community fusion poster exhibit. U.S. Energy Secretary Spencer Abraham and Michigan Governor

John Engler, as well as about 75 others from across the world, stopped by the exhibit to hear more about fusion. Above right, Morgan (left) shows a visitor the display and at left, DeLooper (left) discusses fusion with Governor Engler. ●

## Staff Invited to PPPL's 50th Celebration

*PPPL'ers,*

*It has been fifty years since the U.S. Atomic Energy Commission issued the first contract with Princeton University for fusion research. It has been an exciting and productive time since that first effort. In honor of the research accomplishments which have occurred over this time frame, the DOE Princeton University Plasma Physics Laboratory is hosting "A Celebration of High Temperature Plasma Physics" conference June 5 through 7, 2002. A program for the conference is available at [http://www.pppl.gov/50th\\_celebration/50th\\_program.html](http://www.pppl.gov/50th_celebration/50th_program.html).*

*Although the majority of the conference will be technical, scientific talks, a central part of this 50th anniversary celebration is the reception for all Laboratory staff, our collaborators and visitors. All are invited to join me on Thursday afternoon, June 6 in the LSB Lobby for the celebration. We have invited various dignitaries to this event. We expect them to say a few words of congratulations to the staff. I encourage you to participate in this part of our 50th Celebration.*

*We are expecting approximately 150 visitors to attend this celebration and ask all PPPL'ers who wish to participate in the technical sessions or the banquet, to please register on-line at [http://www.pppl.gov/50th\\_celebration/50th\\_registration.html](http://www.pppl.gov/50th_celebration/50th_registration.html).*

*Should you have any questions, please contact John DeLooper at ext. 3047 ([jdelooper@pppl.gov](mailto:jdelooper@pppl.gov)) or Dolores Lawson at ext. 3554 ([dlawson@pppl.gov](mailto:dlawson@pppl.gov)).*

*— Rob Goldston, Director*