

Hotline

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

PPPL Distinguished Research Fellows Named for 1995

In recognition of their "excellence in theoretical and experimental plasma physics research," two PPPL physicists have received PPPL Distinguished Research Fellowships. The recipients are Masayuki Ono and Michael C. Zarnstorff, who were honored during a formal ceremony on Wednesday, May 24, at the Laboratory.

Said PPPL Director Ronald C. Davidson, "I congratulate our new Research Fellows and wish them continued success in their research. Through their extraordinary accomplishments, they bring great distinction to the Laboratory and to Princeton University."

Extraordinary Records

The Distinguished Fellow Program, which is funded by the U.S. Department of Energy (DOE), was created in 1993 to recognize members of the Laboratory's Research Staff. Fellowships are awarded to those who have achieved extraordinary records of creativity and accomplishments in research over an extended period of time. Fellows receive one-time gifts of \$5,000 and qualify for priority in regard to their research programs.

Ono, who is Head of the Current Drive Experiment-Upgrade (CDX-U) group at the Laboratory, was honored "for pioneering research in the appli-



PPPL Director Ronald C. Davidson (left) with 1995 PPPL Distinguished Research Fellows Masayuki Ono (middle) and Michael Zarnstorff.

cation of ion Bernstein waves for control of the plasma pressure profile in tokamaks, for innovative research in current drive by helicity injection, for discovery of the cold electrostatic ion cyclotron wave, and for contributions to graduate plasma physics education."

Ono received a bachelor's degree in physics from the California Institute of Technology and a Ph.D. in plasma physics from Princeton University before joining the research staff at PPPL in 1978.

During the presentation ceremony, Davidson said, "Ono has

carried out pioneering research on the interaction of radio-frequency waves with high-temperature plasmas on the Advanced Concepts Torus-I, the Current Drive Experi-

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ment, CDX-U, and the Princeton Beta Experiment-Modification devices. He has also participated in the graduate education program with great distinction and has supervised the thesis research of several Ph.D. candidates."

PPPL Associate Director for Research Paul Rutherford, who presented the citation to Ono, remarked on Ono's success at obtaining DOE funding for his projects, as well as the recipient's role in ion-Bernstein heating and in leading graduate students.

Great Honor

On receiving the Fellowship, Ono said, "It is indeed a great honor for me to be selected to this Fellowship among highly regarded peers who are themselves the world leaders in their respective fields ... I am deeply touched by this special recognition."

Zarnstorff was recognized "for excellence in the design, execution, and analysis of tokamak experiments.



PPPL Deputy Director Dale Meade (left) talks with Mike Zarnstorff and Zarnstorff's wife, Sally, during the reception.

Dr. Zarnstorff's experiments have firmly established the existence of the bootstrap current and of neoclassical resistivity, as predicted theoretically. His work has also challenged the conventional understanding of convective thermal transport of ion-temperature-gradient modes, of confinement scaling with current, and of magnetic turbulence."

Zarnstorff came to PPPL in 1984 after receiving a bachelor's degree with honors in physics, mathematics, and computer science, as well as a Ph.D. in physics from the University of Wisconsin-Madison. He is the Deputy Head of the Tokamak Fusion Test Reactor (TFTR) Physics Program Division at the Laboratory and the Leader of the TFTR Task Force for Transport and Advanced Tokamak Studies.

Davidson said of Zarnstorff, "Since 1984, Zarnstorff has been on the research staff at PPPL, where he has been a major intellectual force in the design, execution, and analysis of experiments on the Tokamak Fusion Test Reactor."

PPPL Deputy Director Dale Meade presented the award to Zarnstorff, noting that he first met Zarnstorff in 1970 at the University of Wisconsin. Meade was then an Associate Professor of Physics and Zarnstorff was a high school student working on a computer program for graduate students. More than a decade later, the friendship between the two was rekindled when PPPL management was dispatched to find the



Several PPPL employees congratulated the newly named PPPL Distinguished Research Fellows. Physicist Cynthia Phillips (right) chats with Masa Ono and his wife, Sakiko.

"jewels" at their alma maters and Meade rediscovered Zarnstorff at the University of Wisconsin. "I hope you will continue uncovering the mysteries of transport," Meade told Zarnstorff.

Commenting on receiving the Fellowship, Zarnstorff said, "I am honored to be chosen as one of this year's Fellows, and thank the Laboratory and my colleagues for providing such a stimulating, challenging environment for research."

Also on hand for the presentations was Milton Johnson, DOE Princeton Area Office Manager, who read congratulatory remarks from Anne Davies, the Associate Director for Fusion Energy at the DOE's Office of Energy Research (*Davies' remarks, in part, are included in box on page 3*). Following the ceremony, a reception was held in the Lobby, where employees congratulated the newly appointed Fellows.

Approximately ten PPPL Distinguished Research Fellows are ex-

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HOTLINE

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pected to be appointed by the end of the decade. Last year — the first time Fellowships were awarded at the Laboratory — three Fellows were named. They were Russell Hulse, James Strachan, and Roscoe White.

Active Research

Fellows are expected to devote most of their time to active research. They are required to describe their research during regularly scheduled colloquia. The Fellows form the Distinguished Research Fellow Council, which advises the Director on the scientific direction of the Laboratory. Research staff holding senior positions in Laboratory management and tenured faculty are ineligible for consideration as Fellows. ●

Anne Davies, the Associate Director for Fusion Energy at DOE's Office of Energy Research, offered a congratulatory message to this year's PPPL Distinguished Research Fellows. Excerpts are below.

To Masayuki Ono:

"Masa has maintained, in the midst of the big science nature of PPPL, a sense of what good university science is all about. He has maintained a highly productive program with very modest support. That outstanding graduate students are attracted to his program is indicative of his reputation as a teacher and a colleague."

To Michael C. Zarnstorff:

"Your work on TFTR has been outstanding ... Your experimental work establishing the existence of the bootstrap current has made advanced tokamak scenarios a reality, and your work ranging from investigating ion temperature gradient modes to the scaling of confinement with current has been important to the Transport Initiative."

Major Changes in the PPPL Audit Program

As a result of comments received during a customer survey performed by Quality Assurance last summer, a cross-functional task force was created to improve the audit program and to assure that the program better supports the mission of the Laboratory. The mission of the task force was to review the program and to identify opportunities for improvement. The task force consisted of J.W. Anderson, Jerry Gilbert, Frank Malinowski, Judy Malsbury, Sue Murphy, Wayne Reiersen, Dick Shoe, Rod Templon, Al von Halle, with Frank Patrick of AT&T Quest as the facilitator.

A formal report was generated and is available for access on the QA/R Server in the Public folder with the file name "Audit Task Force Rpt". The following themes characterized the recommendations of the task force:

- The recognition that the purpose of an audit is to provide the management of the audited organization with opportunities for improvement and recommendations.
- Greater involvement of the audited organization in the planning phase of the audit.
- More active participation by the audited organization as part of the audit process.
- A shift of audit emphasis from compliance to operational effectiveness and performance.
- Involvement of the QA organization, after completion of the audit and issuance of the report, in providing consultation and support as requested.

The Task Force believes it is important to test these recommendations on a limited set of audits. Therefore, these recommendations are being incorporated into the performance of the remaining fiscal year 1995 audits. As part of the improvement, if you are interviewed as part of an audit, you will be given a survey form to complete about the interview. Please return these surveys since they will provide valuable information in the continued improvement of this program.

The Home that Peter Built

PPPL's Del Gandio and Wife Welcome Foster Children

At the Eatontown home of PPPL'er Peter Del Gandio, every night is like Thanksgiving.

There's a huge gathering of family — usually around nine members — mounds of food, and a place for everyone at the table.

"The only thing missing is the turkey and cranberry sauce," said Del Gandio.

Del Gandio and his wife, Francesca, are the foster parents of up to four teen girls and one small child at any given time. Add six cats, Mrs. Del Gandio's mother, the Del Gandios, and their 7-year-old adopted son, Robert (who was their foster child for three years before the adoption), and it equals a "full house," according to Del Gandio.

"We both knew we would have a large family, but we never knew it would be this big," said Del Gandio, an engineer at the Lab.

In addition to the usual brood at dinner, Francesca's brother drops by most nights. And Del Gandio's parents join the supper party once a week. "It gets pretty hectic at dinner time ... But we made it a point that since I come home late from work, everyone has dinner together. That's one of the rules of the house," noted the PPPL employee.

Caretakers of Foster Children

The Del Gandios decided to become caretakers of foster children about eight years ago after considering adoption. "My wife had three ectopic pregnancies and she couldn't have kids, so we looked into adopting. But it's very expensive to adopt a child in this country. The minimum is \$20,000," said Del Gandio.

Since they began fostering, they have been foster parents for close to

80 children. The kids stay as short as two days and as long as three years. "I never know how many kids I'll go home to," commented Del Gandio.

Nice Kids

He described his foster charges as "all nice kids." "My wife and I treat them just like our own. We try to be fair. They all have chores and curfews. If they're not grounded, they can go out," said the foster parent.



Peter Del Gandio and his newly adopted son, Robert. The picture was taken during a PPPL Picnic, when Robert was one of Del Gandio's foster children. Del Gandio owes his ponytail to Robert, who challenged him to a ponytail growing contest a few years ago.

One recently went to the prom. Mrs. Del Gandio was busy helping the girl choose a dress and make other plans for the occasion. "My wife is the marvelous one with the kids. She doesn't work outside the home. Her job is to take care of the kids," said Del Gandio.

In addition to helping the teenagers with such things as prom dress selection and dating problems, Mrs. Del Gandio wakes the teens up, takes the children to their doctor appointments, eye exams, and therapy sessions, and deals with the state's Divi-

sion of Youth and Family Services.

The youngsters are all from Monmouth County. Many of the teens have suffered some sort of abuse, either physical, psychological, or sexual, while the younger ones come to foster care because of neglect or abuse, said the foster father. "They all come with a lot of baggage," he added. Everyone arrives at the Del Gandio residence with a "clean slate."

Fostering has been a mix of pleasant, challenging, and occasionally sad experiences. "We have had a lot of good times with the kids. We take them to fairs, to the beach, to the zoo, and to places such as the Franklin Institute," said Del Gandio.

As foster parents of teens, the couple also faces a host of "draining" teen problems, from the usual adolescent concerns of dating and growing up to more severe mental and emotional problems. Occasionally the Del Gandios have had to hospitalize youngsters with mental problems. Often they have had to deal with teens who run away from the foster home.

Family Meetings

"We have a lot of family meetings. When there are two kids at home, it's calm. With three, there's usually a problem with one of them. And if we have four, there's a problem with all of them," said Del Gandio of the dynamics among their foster teens.

The PPPL engineer said patience and an understanding of the youngsters' problems are necessary traits for foster parents. "We usually try to help the kids with what they want and that's to get home to their parents," he said, adding that 90 percent of the

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Foster

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kids are eventually reunited with their families.

Among the happy and challenging times are sad moments, like the time a little girl they had under their care for 18 months was returned to her mother. When the child was brought to the Del Gandio home, the caseworker showed the foster parents pictures of the little girl with cigarette burns and bruises the size of baseballs. Del Gandio said the child's mother blamed the babysitter for the abuse.

During the year and a half the couple cared for the child, they be-

came attached to her. "She was the toughest one to give up," said the PPPL employee. Once returned to her mother, the little girl was allowed to visit her former foster parents regularly. But eventually the mother got married and the stepfather put a stop to the visits.

Kids Remember

A few years later, the little girl borrowed a quarter from her grandmother and called Mrs. Del Gandio, who was elated to hear from her former foster daughter. "The good part is when the kids remember you," said Del Gandio, who currently has two foster teens under his roof. Many of the former foster children who

lived at the Del Gandio home as teens remember the couple and stop by during the holidays, especially between Christmas and New Year's.

"You never know who's going to knock on the door or call," said the PPPL employee. "We can't ever move because the kids wouldn't be able to find us."

"We both knew we would have a large family, but we never knew it would be this big."

—Peter Del Gandio

He said many of the teenagers they had as foster children went on to college, got married, and now have children of their own. "It's nice to see them and to see that they've grown up. Sometimes they bring their husbands and their kids over," said the foster parent.

Del Gandio called being a foster parent "fun." "It's the life we have chosen. We enjoy the kids and don't foresee not being foster parents anytime soon," he said. The foster dad noted that when the kids are out of the house and everything is quiet, it doesn't seem right to either him or his wife.

"I'll have peace and quiet when I'm dead and gone," quipped Del Gandio. ●



The Del Gandio family during the holidays, 1991. Surrounded by their foster children are Peter Del Gandio (far right of middle row) and his wife, Francesca (above him). In the middle is Mrs. Del Gandio's mother, Mrs. Viola, who lives with the family.



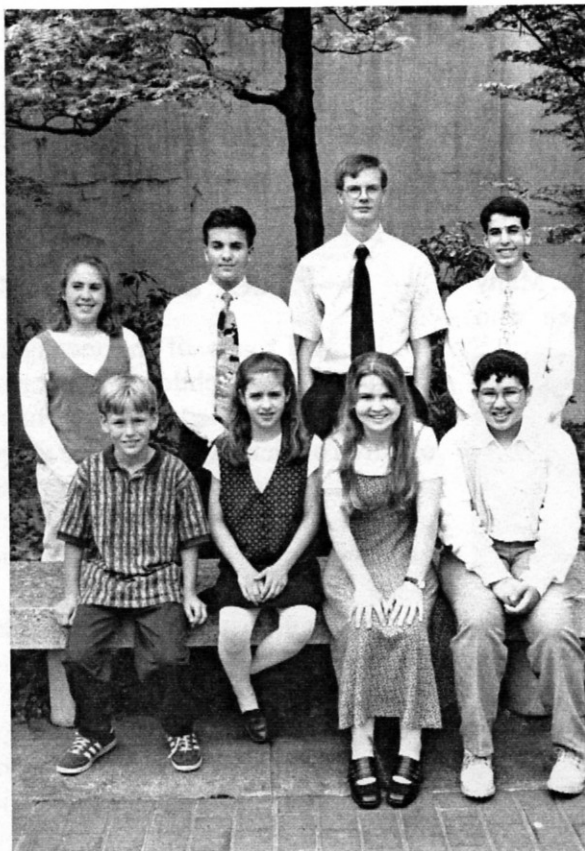
PPPL Family Picnic

Don't forget to purchase your tickets for the **PPPL Picnic**, which is scheduled for Saturday, July 15, from noon to 4 P.M. on the PPPL Grounds. Tickets — \$5 for adults, \$2 for children, and free for children under the age of 2 — are available at the C-Site Reception Desk. The deadline to buy tickets is Friday, July 7.

If you would like to volunteer to help out at the picnic, call Angelo Candelori at ext. 2813.

What's Happening at PPPL

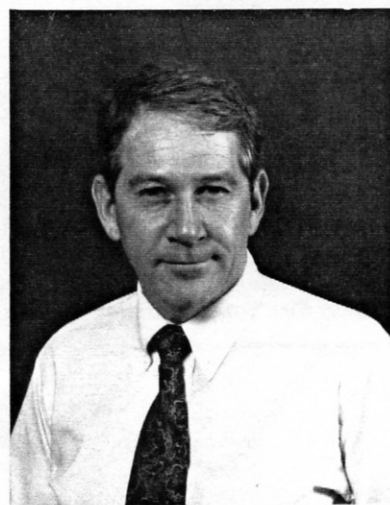
Photo by Mary Ann Brown



PPPL's Science Fair winners and special guests displayed their award-winning projects on Thursday, May 18, in the LOB Lobby. Exhibiting and discussing their projects with Laboratory staff was part of a day-long visit to PPPL that included lunch with PPPL Director Ronald C. Davidson and a tour of TFTR. The winners had participated in the Mercer Science and Engineering Fair at Rider University or in the North Jersey Regional Science Fair in Morristown, both held in March. Some of those who displayed their projects are, from left, beginning with top row, Amy Yaremczak, Thomas Petty, Mike Reedell, and Daniel Weitz, (bottom row), Tom Bartlett, Kelly Damm, Tania Vira, and Amy Matlack.



The PPPL baseball team reveled in a double success at the PPPL United Way Campaign Benefit Ball Game in Howell, New Jersey, on May 24. PPPL beat the WJLK Radio Station team 17-5 and raised \$160 in donations for United Way. The two competing teams are shown above. Also contributing to the campaign was EW Sports Barn, Inc., in East Windsor, which donated three balls and two bats to the PPPL team for the game.



Tom McGeachen recently received a Master's in Science in Engineering Management from the New Jersey Institute of Technology (NJIT) through the NJIT Extension Service. McGeachen is a Project Engineer in Facilities & Environmental Management at the Lab. Congratulations, Tom!

