

HOTLINE

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

Special Symposium in Honor of Ronald C. Davidson to be Held June 11 and 12 at PPPL

In celebration of Princeton University Professor Ronald C. Davidson's 40 years of contributions to plasma physics research and graduate education, PPPL is hosting a two-day symposium June 11 and 12.

"Ron Davidson has been a leader in plasma physics and fusion research for many years, including serving as Director of the Princeton Plasma Physics Laboratory, and carrying us through — among other things — the historic production of over 10 million watts of fusion energy in TFTR. It is an honor for PPPL to host a symposium that honors Ron," said PPPL Director Rob Goldston.

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— PPPL Director Rob Goldston

The symposium is open to the public and all employees are invited to attend any or all of the events. There will be an opening reception the evening before the symposium and a banquet on June 11. **Registration is required for the symposium and banquet. To register, go to <http://nonneutral.pppl.gov/2007/Registration.php>.**

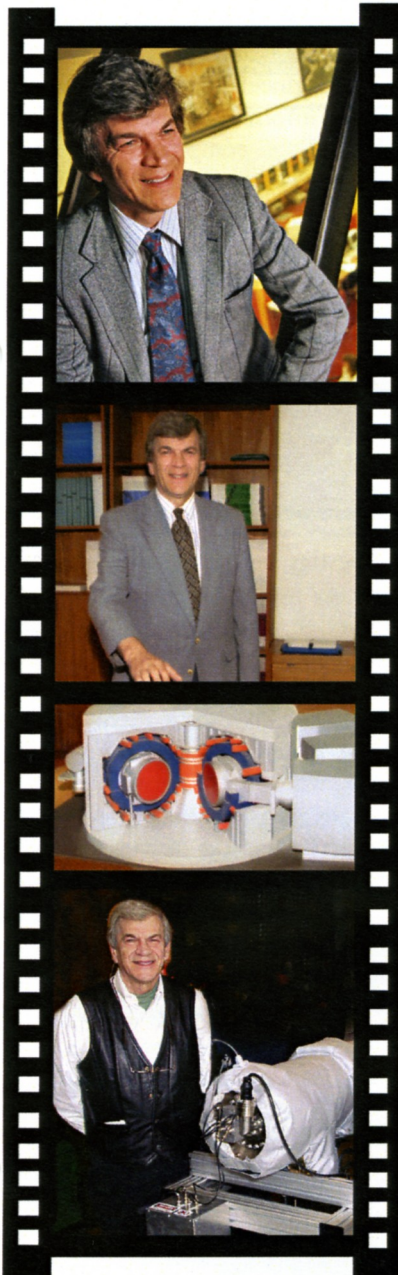
The opening wine-and-cheese reception will be at the Holiday Inn off U.S. Route 1, on Sunday, June 10, from 7:30 p.m. to 9 p.m. The symposium begins Monday, June 11, at 8:30 a.m., in PPPL's MGB Auditorium and concludes the afternoon of Tuesday, June 12. The June 11 morning sessions will focus on magnetic fusion research and the afternoon sessions on high energy density physics and inertial confinement fusion. The June 12 morning sessions will be on nonneutral plasma physics and accelerator physics and the afternoon on basic plasma physics and plasma physics education. A list of the speakers and the program are available on the web at <http://nonneutral.pppl.gov/2007/Program.php>. The June 11 banquet will be held at the Frist Campus Center at Princeton University beginning at 6:30 p.m. The cost for the banquet is \$25 per person.

More information about the symposium is on the web at: <http://nonneutral.pppl.gov/2007/> or by contacting Barbara Sarfaty at bsarfaty@pppl.gov.

Professor Nat Fisch, Chair of the Program Committee for the Symposium, said, "This Symposium has already occasioned an outpouring of warm feelings for Ron Davidson personally and deep appreciation for his efforts, not only through his monumental intellectual contributions to the field of plasma physics, and through his prodigious publications in the field, but also through his service to the community in so many capacities. So many people are simply so happy to honor Ron Davidson."

Davidson is a professor of Astrophysical Sciences at Princeton University and Deputy Head of PPPL's Theory Department and Head of the Laboratory's Beam Dynamics and

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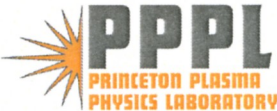


PPPL Inks Mentor-Protege Agreement with Zenex

Partnership Supported by Department of Energy Program



PPPL and Zenex Precision Products representatives recently signed a DOE Mentor-Protege Program agreement. From left are PPPL's Larry Dudek, Director Rob Goldston, Irving Zatz, Rod Templon, Zenex Precision Vice President Robert Wronski, PPPL's Frank Malinowski, DOE's Ray Kimble, PPPL's Ed Winkler, DOE's Kim Tafe, Small Business Administration representative Larry Hansen, and PPPL's Arlene White.



Through the U.S. Department of Energy's Mentor-Protege Program, PPPL is teaming up with Zenex Precision Products, a small business in Paterson, N.J. Through the partnership, Zenex will provide complex machined components to the Lab and share its manufacturing techniques, while PPPL will enhance Zenex's ability to compete and win other government contracts for fabricated parts. PPPL and Zenex recently signed an agreement for the partnership, an outreach component of the Laboratory's small business subcontracting program.

Zenex will provide reliable, timely, cost-effective, high-quality machined components to PPPL projects and share its knowledge about new, high-quality, low-cost manufacturing techniques with the Lab's engineering staff. In return, PPPL will assist Zenex in improving its engineering, quality assurance and business systems, and provide information about additional business opportunities within the DOE complex.

"Zenex has already successfully completed a number of purchase orders for the Laboratory, and has demonstrated its ability to supply complex machined components. The new agreement will allow the partners to build on these successes," said PPPL Procurement Head Rodney Templon. PPPL's Arlene White added, "The excitement of this agreement is mutually shared by PPPL and Zenex. After a year of intense investigation and exploration by the parties, Zenex's supportive and collaborative attitude will contribute greatly to the success of this teaming arrangement." ●

Symposium

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Nonneutral Plasma Division. He is also Deputy Director of the Virtual National Laboratory (VNL) for Heavy Ion Fusion Science, a collaborative effort among PPPL, Lawrence Berkeley National Laboratory, and Lawrence Livermore National Laboratory. He has been the Editor of the journal, *Physics of Plasmas*, since 1991. Since his graduation from Princeton University with a Ph.D. in plasma physics in 1966, Davidson has held a number of distinguished positions, including Director of PPPL and Director of the Plasma Fusion Center of the Massachusetts Institute of Technology, in addition to being a professor at several academic institutions. He has made fundamental theoretical contributions to many areas of pure and applied physics, including nonlinear dynamics and collective interactions, physics of nonneutral plasmas, kinetic

equilibrium and stability properties, intense charged particle beam propagation in high-energy accelerators, beam-plasma interactions, and coherent radiation generation by relativistic electrons. He is the author of more than 300 archival journal articles and books, including four advanced graduate-level texts and research monographs. Davidson also has made important contributions to graduate education and the training of research scientists.

He is the recipient of numerous awards, including the IEEE's Particle Accelerator Science and Technology Award for 2005, the Kaul Foundation Award for Excellence in plasma physics and fusion energy development in 1993, and the Department of Energy's Distinguished Associate Award and the Fusion Power Associates' Leadership Award in 1986. Davidson is a Fellow of the American Physical Society and the American Association for the Advancement of Science. ●

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PPPL Exhibit Draws Crowd at Communiversity

Photo by Anthony DeMeo



PPPPL participated in Communiversity, the annual town-gown community arts festival held on April 28 in downtown Princeton and on the University campus.

Thousands of people attended the festival, and many stopped by PPPL's exhibit and table — which held a model of the National Spherical Torus Experiment (NCSX) vacuum vessel model — to find out more about fusion. Special thanks go to those PPPL'ers who staffed the exhibit: Robert Budny, Tony DeMeo, Dick Majeski, Dave Mikkelsen, Don Monticello, Raffi Nazikian, Patti Wieser, and Mike Zarnstorff. PPPL has been participating in the annual event since the early 1990's.

At left, PPPL's Zarnstorff discusses NCSX with Communiversity attendees. ●

Thanks, Founders Day Volunteers!

On May 6, PPPL participated in Plainsboro Founder's Day, providing a display for the public that included information about fusion and the Lab's activities in the community. Special thanks to the PPPL'ers who staffed the Lab's exhibit:

John DeLooper

Raki Ramakrishnan

Tiana Dodson

Ravi Samtaney

Virginia Finley

CARIBBEAN

The Princeton University 2007 Staff Picnic will be held on

TUESDAY, JUNE 12, 11:30 AM - 2:30 PM

Location: Alexander Beach
(Between Alexander Hall and Blair Arch)
Rain Site: Jadwin Gym

For more information about the Picnic, go to: <http://www.princeton.edu/hr/recog/picnic.htm>

Calling all VOLUNTEERS!

Volunteers are needed for this year's Picnic. All volunteers will receive this year's T-shirt for FREE. Please contact Pamela Johnson, Events Coordinator, at pamelaj@princeton.edu or call 258-9149 to volunteer.

PICNIC TICKETS FOR PPPL'ERS AVAILABLE
May 25 through June 11 at the PPPL Human Resources Office, B172, Sonja Patterson, from 10 a.m. to 2 p.m.

Transitions

Births



Congratulations to PPPL physicist Rajesh Maingi and his wife, Nola, on the March 13 birth of their daughter, Jillian Karina Maingi.



Justin Feder (with big brother Brandon, 19 months) was born March 2 to PPPL's Russ Feder and his wife, Rebecca.



PPPL's Jackie Pursell and her husband, Torrey, welcomed son Jacob on December 19.





Name: Neil Pomphrey

Position: Principal Research Physicist, working on physics calculations in support of the National Compact Stellarator Experiment (NCSX) design. His recent work focuses on calculations for the design of the magnetic flux loops being installed on the NCSX vacuum vessel.

Quote: “Usually the work I do is so esoteric, so it’s neat for me to see these magnetic flux loops go on the machine because they are so practical, tangible,” says Pomphrey, who joined PPPL 25 years ago. Prior to PPPL, he had been working on oceanography in California at the La Jolla Institute, Center for Studies of Nonlinear Dynamics, where a PPPL theorist on sabbatical told him about the Lab’s interesting work.

“I came here not having any idea what a plasma was,” he says, noting that a good deal of what he does is mathematics, and those skills transfer easily. “I tell young people to keep their options open, and not to assume they will be working in the field they began in.”

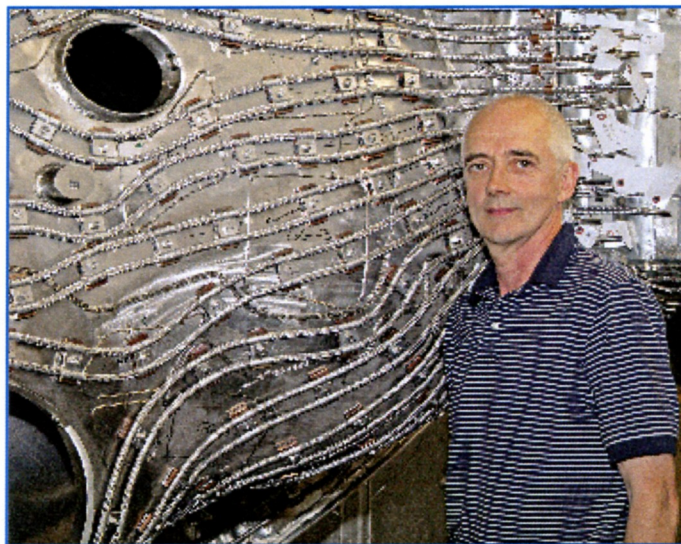
Describing PPPL as “a great place to work,” Pomphrey adds, “I really respect the quality of the physicists and engineers who work here. The other nice thing is the diversity of the projects, giving one many interesting things to get involved with. And our major project — fusion — will be beneficial to mankind, which is certainly a plus.”

Other Interests:

Pomphrey enjoys spending time with his wife, Ann, who works at Robert Wood Johnson Foundation, and their two cats, as well as traveling, squash, golf, and books.

Pomphrey has been the assistant coach for the Princeton University men’s squash team — one of the top squash teams in the U.S. — for 15 years. “It’s a strong program and I’ve been lucky enough to be involved with three intercollegiate champions,” Pomphrey says, noting that coaching involves a large commitment of time. “There are two-hour practices in the winter season five days a week, plus the matches.

The rewards, though, are rich. “I really enjoy being around the kids,” says Pomphrey, who grew up playing squash in Edinburgh, where he also picked up his first golf club at the age of 12. “Golf is my other hobby.” He plays with the Princeton University Golf League, where three years ago he had a hole in one on a par 4 while golfing at Bunker Hill. “I’ve been lucky enough to have four holes in one so far, three before the age of 18, and the last one with the Princeton League,” he notes. Pomphrey had golfed through his teen years, and then took a 15-year break, but says, “It’s like riding a bike.”



The native of Scotland spent his first 22 years in Edinburgh, playing all kinds of sports — rugby, cricket, golf, and squash — and being continually drawn to science. “It was clear early on I liked science. I was a late developer because I thought of sports first, but I imagined I would grow up to become a chemist,” says Pomphrey.

Initially he applied to Edinburgh University with a plan to go into chemistry, but a new course — chemical physics — was being offered to students who had good grades in chemistry and physics. Pomphrey joined five other students in the new course tailored to them. “We had an incredible student-to-instructor ratio, and that was how my trend toward physics was formed,” he explains.

Pomphrey received a bachelor of science degree in chemical physics from Edinburgh University and a Ph.D. in physics from the University of Stirling in Scotland. He completed post-doctoral research at Queen Mary, University of London, and at the University of California at Berkeley before joining the staff of the La Jolla Institute in 1980. Three years later, he came to PPPL.

“I was fortunate to meet my wife in London,” Pomphrey recalls. He’d been in Holland playing with the Stirling volleyball team following the team’s Scottish championship victory. On his way back, he stopped in London to find a place to rent since he would soon be there for post-doc work. He’d found a student house that had an opening — a serendipitous circumstance, despite its shabbiness, since his future wife lived there, too.

The couple enjoys traveling and reading mysteries by Pomphrey’s fellow Scotsmen Ian Rankin (author of the Inspector Rebus series) and Alexander McCall Smith, as well as travel books and other literary treasures. Pomphrey recently completed “The Namesake” by Jhumpa Lahiri and two books by Rory Stewart, “The Places In Between” and “The Prince of the Marshes — And Other Occupational Hazards of a Year in Iraq.” Says Pomphrey, “I love reading.” ●