

Hotline

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

Spitzer Building Dedication and NSTX Groundbreaking Create Magical Day



PPPL celebrated the dedication of the Lyman Spitzer Building and the groundbreaking of the National Spherical Torus Experiment (NSTX) on Monday, May 18. Above, standing in front of a full-scale drawing of NSTX are (from left) Masa Ono, NSTX Project Director; Robert Goldston, Director of PPPL; Martha Krebs, Director of the U.S. Department of Energy's Office of Energy Research; Anne Davies, Associate Director, U.S. Department of Energy Office of Fusion Energy Sciences; Doreen Spitzer, widow of Lyman Spitzer, Jr.; and Martin Peng, NSTX Program Director. In an earlier ceremony, PPPL's Laboratory Office building was renamed in honor of Laboratory founder Lyman Spitzer, Jr., who died last year. At right, Mrs. Spitzer (right) and Dr. Krebs view the building plaque after the unveiling.



A Magical Day...

By Patti Wieser

May 18 at the Laboratory was — in a word — “magical.”

With spectacular weather, red-white-and-blue ribbons, and festive balloons heralding the event, PPPL celebrated the dedication of the Lyman Spitzer Building and the groundbreaking of the National Spherical Torus Experiment (NSTX).

“It was truly a magical day for the Laboratory. Congressman Pappas was very supportive. Congressman Frelinghuysen gave a rousing positive speech. Martha Krebs also spoke very strongly in support of fusion and of the Laboratory’s role as a home for national facilities. Harold Shapiro spoke eloquently about endings and beginnings. Doreen Spitzer, however, put us all to shame with references to Thucydides, which I later learned she is reading in the original Greek! Indeed her speech was a high point, and she endowed the whole ceremony with magic,” said PPPL Director Rob Goldston in a message to staff the day after the events.

Prior to the unveiling of the Lyman Spitzer plaque, which now marks a pillar at the entrance to the former Laboratory Office Building, Goldston joined Princeton University President Harold Shapiro, U.S. Representatives Rodney Frelinghuysen and Michael Pappas, and Martha Krebs, Director of the Office of Energy Research at the U.S. Department of Energy in the auditorium to offer remarks.

Krebs lauded the achievements of Spitzer and spoke of the Laboratory’s continuing leading role in fusion research. “Professor Spitzer chose to work on the ‘big’ problems of science, so it is no wonder that he chose to work on the problem of creating the energy of the stars on earth...He set the tone of scientific excellence which has characterized the Laboratory ever since,” she said.

The Department of Energy official spoke of the dramatic changes at the Laboratory and of the fusion



Martha Krebs

program since Spitzer started Project Matterhorn in a small building on the other side of the Forrestal Campus. “With the restructuring of the fusion energy sciences program, Princeton Plasma Physics Laboratory has taken on a mission much broader than the original Project Matterhorn — developing the scientific understanding and innovations that will lead to an attractive fusion energy source. This mission includes working on both the scientific and engineering innovations that will lead to a lower cost design for the International Thermonuclear Experimental Reactor and exploring innovative concepts like the National Spherical Torus Experiment,” Krebs said.

She also discussed the important roles of improved theory and computation, the need to continue making progress on alternate concepts, and the importance of small experiments, basic plasma science research, and outreach and science education. “Fusion research is a long-range program and needs to be open and responsive

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to the development of new ideas," said Krebs, later adding, "The primary mission of the fusion program is to develop the knowledge base for an economical and environmentally attractive source of fusion power."

Krebs closed by paying tribute to the Laboratory's founder. "Lyman Spitzer still provides an excellent inspiration to the whole of the fusion research program. His vision of the future was guided by both theory and computation, as tempered by actual experiments; his institutional and organizational efforts reflected a passion for excellence; his scientific reach was broad, allowing him to interact effectively with disciplines outside the bounds of plasma physics; his original goal of placing a star on earth remains a compelling challenge for those who follow in his footsteps," she said.

During the unveiling outside the Laboratory, Doreen Spitzer, the widow of Lyman, spoke of continuity, renewed hope, the pleasure of the search, and the "power of the electron."

Telling the crowd how wonderful it was to see so many familiar faces again, Mrs. Spitzer said, "We are remembering the 40th anniversary [of PPPL] on November 1, 1991, and Carl Sagan's inspiring remarks, despair and gloom over cuts and retrenchments, now renewed funding (never quite enough, of course), but plenty of renewed hope and energy, new ideas, new ways of tackling problems."

She recalled her mother's belief in continuity and in keeping up the search, and noted a quotation of Robert Louis Stevenson's often repeated by her father, "To travel hopefully is a better thing than to arrive, and the true success is to labor." Her father, she added, called Lyman a "night watchman."

The Stevenson line became a family quotation, along with Lyman's remark to his children when they asked,



At the newly dedicated building are (from left) Princeton University President Harold Shapiro, PPPL Director Rob Goldston, DOE Office of Energy Research Director Martha Krebs, Doreen Spitzer, former PPPL Director Melvin B. Gottlieb, Rep. Michael Pappas (NJ 12), and Rep. Rodney Frelinghuysen (NJ 11).

"Daddy, what did you do today?" and he replied, "I was thinking what I would do if I were an electron."

After describing the people at the Laboratory as "quite wonderful," Mrs. Spitzer said, "There will continue to be setbacks, and breakthroughs, errors, and triumphs. But you will be learning from these, and you will be teaching younger generations who must be well-trained in order to succeed you in their turn. It's a marvelous time to be living in. Spectacular discoveries are being made in every direction. I have great confidence in the power of the electron."

In closing, she added, "For me personally, the dedication of this building in the name of one of the finest scientists, yes and I'll add — one of the finest human beings of our time — insures a continuity of fine minds working together with limitless labor and energy, committed to high purpose for humanity in our world. If there is technology magic in a name, there will be magic in NSTX. God bless, and carry on!"

Mrs. Spitzer and Dr. Krebs then pulled the red-white-and-blue banner to reveal a plaque marked "Lyman Spitzer Building." Following the dedication, everyone gathered at the NSTX Test Cell for a groundbreaking ceremony. On a raised platform, special guests and project leaders held glasses of chilled sparkling cider to toast the future of PPPL's next fusion device.

The day concluded with a scientific colloquium in honor of Lyman Spitzer, Jr., featuring talks by Goldston, Princeton University Provost Jeremiah Ostriker, NSTX Program Director Martin Peng, Princeton University Department of Astrophysical Sciences Chair Bruce Draine, and Princeton University Department of Astrophysical Sciences Professor Edward Jenkins.

Said Goldston, "When you travel a long and exciting road like the one we are on, it is very important to have good companions. PPPL is a great place to work because of the high standards we set for ourselves, and because of the strong sense of teamwork we bring to these tough problems. This is a great team of scientists, engineers, technicians, and support personnel. Over and over I am amazed by their insight and by their dedication. It is an honor for me to work with such a team." ●



A crowd gathers for the building dedication.



Photos by Elle Starkman and Denise Applewhite