

Theory Division Head, Deputy Head Appointed

Dr. William Tang has been appointed Head and Dr. Charles Karney has been appointed Deputy Head of the Laboratory's Theory Division, according to PPPL Director Ron Davidson. Said Davidson, "PPPL's Theory Division is the premier plasma theory group in the world, and we are indeed fortunate that Bill Tang and Charles Karney have accepted this important responsibility." Both Dr. Tang and Dr. Karney are Principal Research Physicists and Lecturers with the rank of Professor in Astrophysical Sciences at Princeton University.

The two succeed Drs. Roscoe White and Liu Chen as Head and Deputy Head, respectively, of the Theory Division. Said Davidson,

"Both Dr. White and Dr. Chen deserve much credit for the significant accomplishments achieved by the Division during their six years of outstanding service."

Noted Dr. Ned Sauthoff, Head of the PPPL Physics Department, "In choosing Dr. Tang and Dr. Karney for these important positions, we kept in mind the Theory Division's mission for the rest of the 1990s, which includes balancing the need for basic research with the need for support of experimental activities."

Tang is an internationally recognized specialist in the theory of microscopic plasma turbulence and transport and has pioneered important advances in the understanding

of transport processes in tokamaks. He has also worked extensively on the interpretation of transport experiments carried out in TFTR and other tokamaks.

Karney is a widely recognized expert in computational physics, noninductive current drive, and nonlinear physics. At present, his research is directed at divertor physics and current drive with a focus on their application to ITER (International Thermonuclear Experimental Reactor).

Division Is Both Creative and Practical

As Head, Tang will have both scientific and fiscal responsibility for the Theory Division. He observed, "My twenty years in the Division has given me a deep appreciation for the intellectual environment required for creative research, while at the same time providing me with a realistic perspective on the importance of the applied arena. We must maintain our basic research so that new ideas don't dry up, while at the same time focusing on ways to turn innovative ideas into useful products."

He added, "It's crucial that the Theory Division maintain strength through the early 1990s so that the Lab can continue to be a source of good physics during the intervening time between TFTR and TPX (Tokamak Physics Experiment). To this end, it's most important to increase the visibility of the Theory Division both here and in Washington."

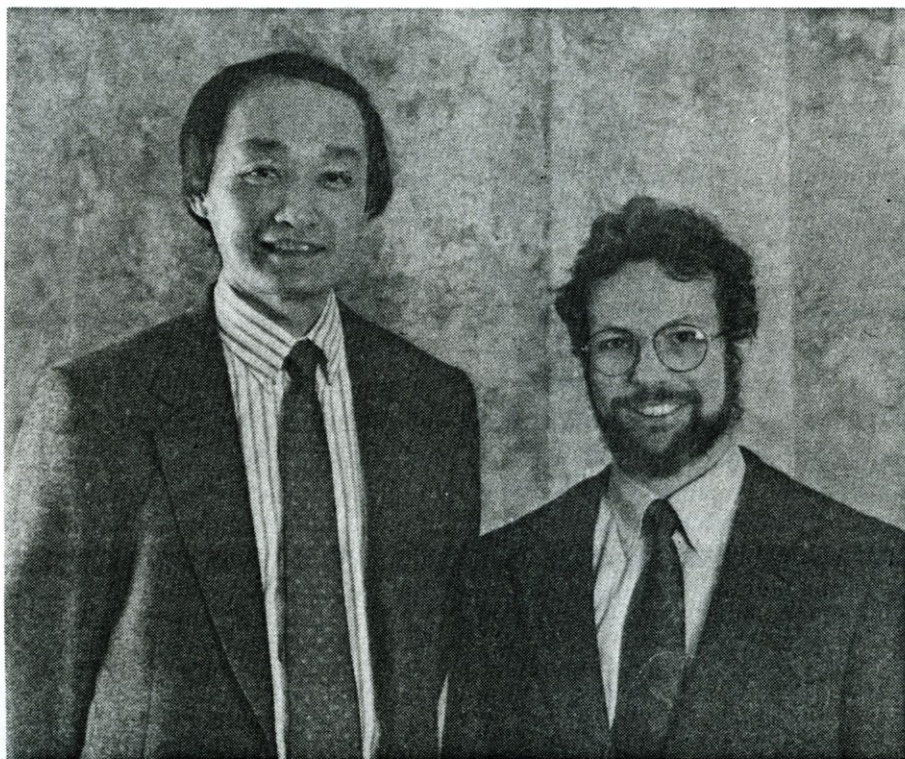


Photo: D. Applewhite

Theory Division Head Bill Tang (left) and Deputy Head Charles Karney.

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Theory Heads

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"Ideally, during the interim, PBX-M will be strongly supported and will continue to provide us with a source of fresh new data," noted Tang. "Other data sources may come through collaborations with other institutions both nationally and internationally."

"There's plenty of room for creative physics on TPX as well," added Tang. "I look forward to the Lab's Theory Division having a visible role in TPX design, particularly since we are the host institution."

As Deputy Head, Karney will work closely with staff to explore future roles for the Theory Division. Observed Tang, "We have 26 very talented theorists here, and Charles will play an important role in tapping their expertise, as well as helping to assimilate and coordinate their ideas."

Noted Karney, "A major emphasis will be on longer range problems funded directly by DOE. It's important to keep that work in place because it anticipates the needs of future experimental work. The fusion program needs more innovative ideas that can make the tokamak more cost effective, as current drive may prove to do."

"At the same time," added Karney, "we will work to foster collaboration with theorists at other institutions and expand funding outside of the DOE Office of Fusion Energy. In the past, we've received some funding from the National Science Foundation, in the area of Space Plasma Physics, and in Laser Theory. We'd like to see this kind of funding expanded."

According to Sauthoff, some of the areas outside fusion for which the Theory Division can be a source of innovative and creative ideas include fluid turbulence and fluctuations, space physics, atmospheric physics, and plasma processing. ♦

Trenton/PPPL Partnership Renewed

150 Classroom Visits Made

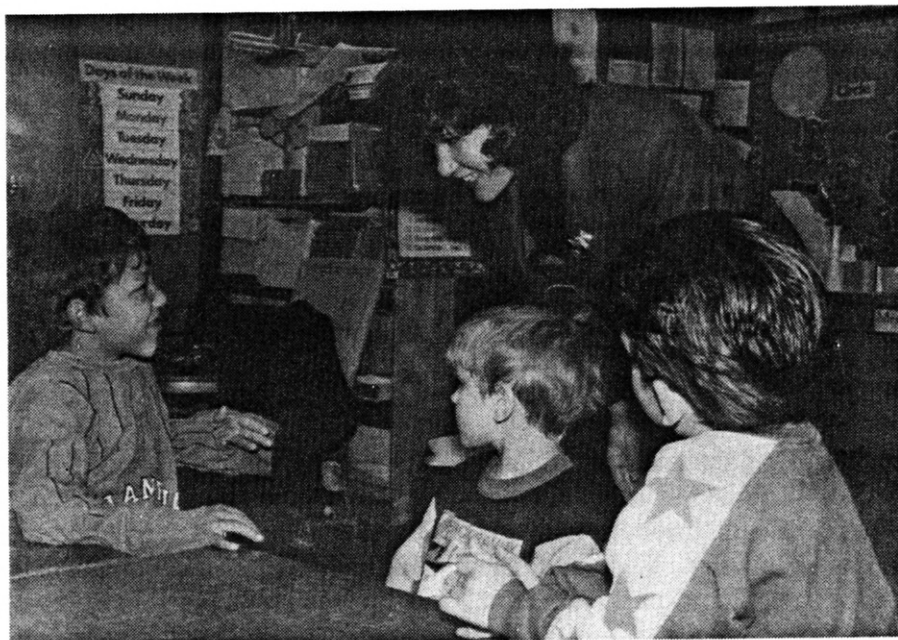


Photo: D. Applewhite

PPPL Science Education Program Leader Sharon Sherman enjoys a moment with children during a classroom visit made possible through the DOE-sponsored Trenton/PPPL Partnership.

Through the Trenton/Princeton Plasma Physics Laboratory Partnership, PPPL staff from research, lab, shop, and administrative areas have visited over 150 Trenton classrooms during the last two years, according to Diane Carroll. The Partnership, which has recently been renewed, is funded by the Department of Energy. Lab staff have worked with children on such diverse topics as Newton's Laws, radiation, energy, coral reefs, the metric system, probability and statistics, and superconductivity. In addition, school students have had the opportunity to visit the Lab.

Dr. Patrick Alvarado, Trenton Science Supervisor, is most enthusiastic about the results of the Partnership. He says, "Our students are learning to look at problems in a different way. They're learning to investigate. In addition, because PPPL has opened its doors to us, our kids have access to facilities they couldn't possibly have in the

schools. This is making a real difference."

The stated objectives of the Partnership are: to provide assistance in science and mathematics instruction, to assist teachers in upgrading and expanding their knowledge of scientific and technical concepts, and to upgrade instructional equipment used in science and related classes. The Partnership also encourages students at all levels to pursue careers in science and technology.

Summer Programs for Students, Teachers

Another aspect of the Partnerships are the Summer Teachers' Institutes for elementary school teachers held at the Lab each summer. After attending last year's Institute, Doris Gross, a teacher at P.J. Hill School, said, "I did lack the confidence in presenting physics to my class, but I now feel better

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Partnership

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prepared, and I shall endeavor as a 'missionary' in order to equip my students with a firmer physics background."

Former Trenton Central High School student Marc McKithen spent his summer engaged in research at PPPL as part of the Summer Science Awards program. Said McKithen, "My time at PPPL as a Summer Science Award recipient was spent working on various projects that required me to learn a variety of new skills and polish old techniques and to become acquainted with people from different technical and nontechnical fields." As a result of his experiences, Marc says he would like to engage in research in the future.

Seminars for Principals

Under the leadership of Ms. Everene Downing, Trenton's Director of Curriculum, Instruction, Staff Development, Computer Education, Magnet Programs, and Training, PPPL will provide instructional leadership seminars for principals of grades K-12. Observed Downing, "These seminars will support the development of improved instructional leadership and supervision."

Dr. Alvarado summed up the benefits of the Partnership by saying, "Thanks to PPPL, our teachers and students can interact with experts. They're learning to experience science in a different way—the real way. Kids often think there's a right answer to every problem. They're learning that in the real world, you don't always find a clear answer. Sometimes you're wrong and you have to start over. This is an important part of their experience base."

Staff members interested in becoming more involved in education are invited to call the PPPL Science Education Office to explore possibilities. "People can participate in many different ways, from serving on a curriculum committee to judging a science fair, or working directly with students through tutoring, mentoring, and classroom projects," notes Sharon Sherman. "We're happy to provide lesson ideas and orientation to anyone who's interested."

Please call Sharon or Tim Bennett, Science Education Program Leaders, at ext. 2114, or stop by B137 (across from the Telecommunications Office) to learn more. ♦

DOE Postdoctoral Fellow at PPPL

Dr. Roger A. Vesey has been awarded a Distinguished Department of Energy (DOE) Postdoctoral Fellowship that will allow him to do research at PPPL for the next three years, according to Lab Director Ron Davidson. Vesey has a broad background in tokamak plasma physics, fusion engineering, and computational physics, and recently received his doctorate in Nuclear Engineering from Rensselaer Polytechnic Institute (RPI). While there, he held a DOE Magnetic Fusion Energy Technology Fellowship.

Vesey was one of 12 people nationwide, and the only one in fusion, chosen for the Fellowship. Choices were made from a large pool of Postdoctoral Fellowship candidates in various kinds of energy research, including high energy and nuclear energy. Choices were based on academic excellence and scientific

achievement. The program is administered by the Oak Ridge Institute for Science and Education (ORISE).



Photo: D. Applewhite

Dr. Roger A. Vesey

Divertor Modeling Group

Vesey, who arrived at the Lab on January 4, joins the Divertor Modeling Group, headed by Dr. Douglass Post. Said Post, "We're delighted to have Roger join our group, and we look forward to the contributions he will make as a computational physicist."

Added Post, "His doctoral thesis at RPI involved the development of a large computer program designed to model the behavior of divertors and edge plasmas in tokamaks. Its focus was on a numerical solution of the divertor plasma equations via the finite element method. At PPPL, Roger will continue to research new divertor modeling approaches." (Divertors work to magnetically control the interaction between the tokamak plasma edge and the vacuum vessel walls.)

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Postdoctoral Fellow

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Said Vesey, "I'm very pleased to be at PPPL, because this is where new divertor modeling methods are being developed and refined and where the largest concentration of people with both expertise and experience in this area are working."

In describing his fusion research background, Vesey said, "During my undergraduate and graduate years I worked in fusion blanket neutronics. One summer at Oak Ridge National Laboratories (ORNL), I worked on thermal stress analysis for the Compact Ignition Tokamak (CIT). Another summer at ORNL, I worked on plasma heating antenna design. I also performed thermal/structural analysis of the first wall in the early stage of the ITER [International Thermonuclear Experimental Reactor] project."

Concluded Vesey, "My original reason for choosing fusion as my area of concentration is its potential as a new source of energy. This DOE Fellowship gives me the opportunity to make a contribution to the fusion research effort." ♦

HOTLINE

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Robak Certified in OH

One of our PPPL nurses is sporting a new name pin—Faith Robak, RN, BSN, and now also COHN. With her recent certification as a Certified Occupational Health Nurse (COHN), Robak joins the 11 percent of nurses certified in occupational health nursing by the American Board of Occupational Health Nurses. COHN Certification signifies knowledge, experience, and peer recognition of excellence in the specialty.

While initial certification is awarded through a national all-day examination, stringent prerequisites are necessary to sit for the exam. For example, in addition to in-depth study for the exam itself, 75 continuing education credits and extensive documentation of a high-quality professional practice are required.

Says Robak, "I learned a tremendous amount that is applicable to my job here at the PPPL dispensary. In the almost 14 years I've worked here, the scope of occupational health nursing has expanded greatly. I now have responsibilities that require knowledge about chemical exposures, physical assessment, ergonomics, counseling, health education, legal, and ethical issues. The COHN certification has expanded my knowledge and confidence in all these areas."

Says Dr. John Caruso, PPPL's Occupational Medical Director, "I congratulate Faith on her accomplishment. It fully prepares her in occupational health and occupational surveillance, in management of occupational injury and illness, and in encouraging healthy lifestyles." ♦

Promotions

Congratulations to those who received promotions and/or acquired new responsibilities starting in October.

Best wishes in your new work. Listed below by organization and staff are those who received promotions.

ES&H/QA

Administrative Staff

Joan DeVastey
Joanne Savino
Carol Silvester
William Slavin

Sr. Laboratory and Shop Staff

Keith Chase

Laboratory and Shop Staff

George Peak

Office and Support Staff

Elaine Kozinsky

BPX Project

Office and Support Staff

Janet Hergenhan

TFTR Project

Research Staff

Gregory Hammett
Cynthia Phillips
J. Randy Wilson
Stewart Zweben

Physics Department

Research Staff

Hamid Biglari
Steven Cowley
Russell Hulse
Harry Mynick
Charles Skinner

Office and Support Staff

Elizabeth Carey

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Promotions

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Engineering Department

Administrative Staff

Sara Flohr
Raymond Jeanes

Engineering and Scientific Staff

Michael Diesso
Charles Gentile
Ronald Hatcher
Lawrence Lagin
Michael Leonard
Seng-Liek Liew
Douglas G. Loesser
Douglas McCune
Robert Mika
Wayne Reiersen
Richard Scillia
Thomas Senko
James Snyder
Allan Stevens
Michael Viola
Irving Zatz

Sr. Laboratory and Shop Staff

Dominic Bisanzio
Joseph Carson
Robert Cutler
John Garboski
John Krzywulak
Edmond McBride
Ray Pysher
Carl Scimeca
Joseph Stacy
Frederick Wasylenko
Daniel Zydorski

Laboratory and Shop Staff

Michael Anderson
David Brelsford
Deborah Day
Christopher Gilton
Robert Herskowitz
Larry Jones
Paul Kan
John Mazzella
Nathaniel Thomas
Thomas Ward

Laboratory and Shop Staff (cont.)

Warren West

Office and Support Staff

Lois Hutchinson

Office of Resource Management Administrative Staff

Diane Schloder
Arlene White

Office and Support Staff

Teresa Chapman
Connie Cummings

Office of Human Resources and Administration

Administrative Staff

Bobbie Forcier
Molly Tompkins

Office and Support Staff

Sonja Patterson

TRANSITIONS

New Hires

We welcome these recently hired PPPL employees in the following areas:

Accounting

Margaret Carideo,
Staff Accountant
Anne Ettore, Staff Accountant
Kathleen Ravenel, Accounts
Payable Clerk

Duplicating

Beverly Falkler,
Senior Graphics Technician

Engineering

Rudolf Precter, Mechanical
Engineer

Environment, Safety, and Health
Thomas Bauer, Health Physicist

Research

Yong-Seok Hwang, Associate
Research Physicist

Leonid Zakharov, Research
Physicist

Training & Development

Brian Trombley, Training
Specialist

Births

Congratulations to Joan deVastey
of Safety and her husband Jean-
Pierre on the birth of their son Paul
Alexandre born December 23.

All the best to Eugenia Spears of
Procurement and to her husband
Dan on the December 28 birth of
their son Daniel Jarell.

Best wishes to Bob Klinowicz of
Emergency Preparedness and his
wife Michelle on the arrival of their
daughter Shannon Rose on January
16.

Retirements

Robert E. Diernbach retired on
January 1 after 29 years at the labo-
ratory. He was a Technical Associ-
ate in the Physics Department for
PBX-M.

Dirk Dimock, who had been with
the Lab since 1957, was a Principal
Research Physicist at the time of
his December retirement.

Adele Dorigo, retired November 1.
She was a Draftsperson in Engi-
neering and had been employed at
PPPL since 1979.

Elizabeth Klank, a Data Process-
ing Assistant in Facilities Engineer-
ing, retired December 1 after 13
years at PPPL.

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TRANSITIONS

CLASSIFIED

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Retirements

Carolyn Springer, served as an Accounting Assistant before her December retirement. She had been at PPPL since 1971.

Frank M. Van Reymersdal, a Technical Associate in the Tech Shop retired from the Lab on January 1 after 28 years of service.

In Memory

John Clark died on December 3. He had served the Laboratory from 1974 to 1988 and was a Technician in the Maintenance Division at the time of his retirement.

Car Pool to Train!

Need a ride between PPPL and Princeton Junction at 8:00 a.m. and 5:00 p.m.? Here's an offer to provide daily transportation to and from the Lab for a small fee. Please contact Bill Koenig at extension 2064.

