

## Grad Students Receive Honors

Two PPPL graduate students in the Astrophysical Sciences Department, Alex MacAulay and John Reynders, have been honored for outstanding achievements during their graduate studies, according to Thomas Stix, Director of Graduate Studies at PPPL. "We're delighted to have this recognition of excellence from the University for two of our students in the plasma physics program," said Dr. Stix.

### MacAulay Awarded Procter Fellowship

MacAulay has been awarded a Charlotte Elizabeth Procter Fellowship for 1991-1992. Only 11 honorific fellowships from Princeton University are awarded yearly. The Procter Fellowship is designed both to recognize outstanding performance and to provide a stipend to support the completion of the degree.

MacAulay's thesis advisor, Steve Cowley, commented, "Alex is a bright, innovative, and independent thinker who shows a lot of initiative. In addition to his excellent academic contributions, he is also completing a second year as assistant master in Forbes College, a position he was selected for on the recommendation of the master."

MacAulay's thesis research explores the process of pellet evaporation and the resulting plasma response.



Alex MacAulay (left) and John Reynders Photo: Dietmar Krause

He says, "I wanted to work on something that will have a practical application. My hope is that a fuller understanding of how pellets work will help clarify the requirements of pellet injection."

In regard to the fellowship award, MacAulay comments, "I'm very happy to have received the fellowship, because I know it represents strong support from a lot of people. I'm especially grateful to Steve Cowley, Tom Stix, and to Forbes College for their support."

### Reynders Receives Grimm Prize

John Reynders was awarded the Raymond C. Grimm Memorial Prize, given annually to a Princeton University graduate student for significant

achievement in computational physics.

The prize was established to honor Raymond C. Grimm for his important contributions to the area of computational plasma physics and his support of the National Magnetic Fusion Energy Computer Center. Grimm worked at the Lab from 1972 to 1984.

According to his thesis advisor, Wei-li Lee, "John is a very intelligent, enterprising young man. He has pioneered the uses of parallel computer architecture using particle simulation techniques,

where he explored the most efficient ways for the CPU units to communicate with each other. He is one of the few authorities on parallel computers who also has a solid physics background."

Reynders was awarded an Office of Naval Research fellowship for his first four years of graduate study. It is one of 50 awarded annually to civilians. He notes, "Through the Naval Research Lab in Washington D.C., I've had the opportunity to work first with the CM-1 and then the CM-2 parallel computer."

Unlike the more familiar serial computer, which analyzes data in a linear way, the parallel computer is able to analyze many bits of information at the same time. It's comparable

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to having one very fast check-out line in the grocery store versus many somewhat slower check-out lines. Parallel computer architecture sets up many CPUs which act as "check-out lines," according to Reynders.

"Dr. Lee has been a superb advi-

sor," notes Reynders. "He has put in a great deal of time teaching me gyrokinetic theory and discussing physics issues. Now we're able to use the parallel computer to simultaneously follow millions of particles and attack much larger fusion related problems."

When he had more leisure, Reynders enjoyed being the social

chairman of the graduate college and playing the pipe organ. Lately though, he's dedicated himself almost exclusively to his thesis research, for which one might dub him a "particle pusher." But whatever he's called, Dr. Lee observes, "John's project is relevant and highly visible. People are very excited about what he's doing." ■

## Are You an Expert? You Too Can Teach!

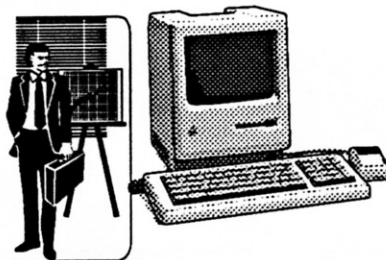
Let's say you've been at PPPL ten or 20 years, and you've been recertified in the same course three, four, or even five times. Even more important, you've been *using* the course information day in and day out to do your job.

Or, let's say you're a Red Cross volunteer or volunteer fireman or woman in your community. You may know first aid or other safety skills. Or maybe there are subjects you studied outside the Lab that are useful to you here.

*Although you may never have thought of yourself as one, you may be an expert (or at least very knowledgeable) in certain areas.* And chances are, you could actually teach the relevant course *yourself*—with logistical and organizational support, and maybe a little coaching, of course.

If you think you may have special knowledge or skills, Susan Murphy is looking for you! Murphy, Manager, Certification and Training, says, "I know there are many people around the Lab who could enrich our training program greatly with their understanding and experience. I hope they will identify themselves, and then we can work with them to develop and/or upgrade courses."

Adds Murphy, "People who are



very good at what they do may still be hesitant to teach. However, their hesitancy may be unfounded, because I will help any potential teacher design a course, develop an outline, and choose materials. Even if someone has never taught before, I'm confident we can support him or her in preparing to do so."

Possible course topics range from A for "Area Safety Coordinator Training," B for "Basic First Aid," and C for "Confined Space Entry" all the way to T for "Technical Writing," and W for "Weld-

ing," or "Word Processing." Since courses are typically only two or three hours a day for one or two days, the preparation time is reasonable.

Murphy comments, "I really want to encourage people to consider the contribution they can make, as well as the experience they will gain in teaching a course. In certain cases, we may even be able to send staff members for further training, so that they can better teach a course here. Right now our highest priorities are environment, safety, and health-related, but I hope anyone with a good idea will call or send in the form. I hope they will also encourage their colleagues to consider teaching."

Anyone who wants to explore the possibilities is welcome to call Susan Murphy at extension 2224 or send her the form below at Room A113, C Site. ■

I am interested in exploring the possibility of teaching a course (courses) in:

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I have an idea for a course or courses upgrade, but I may not be interested in teaching it myself.

The course is:

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Name: \_\_\_\_\_ Extension: \_\_\_\_\_

# Hazmat Coordinator

**J**im Scott has recently joined PPPL in the newly created position of Hazmat Coordinator. He will manage the day to day activities of the Hazardous Materials Section and participate in developing policies and procedures. "Jim is the designated person to contact for day to day employee needs regarding hazardous waste disposal, spill response, and clean up," says Scott Larson, Manager of the Transportation and Hazardous Materials Branch.

"I look forward to working closely with those at the Lab who generate waste," notes Hazmat Coordinator Scott. "We will need their help in the major task of gathering information for data bases that track chemicals from the time they arrive at the Lab until they move into the waste stream."

He adds, "We plan to streamline the paper flow so that those who generate waste won't have to repetitively fill out forms. To do this, we need to know exactly what will be in



**New Hazmat Coordinator Jim Scott (left) and Scott Larson, Manager of the Transportation and Hazardous Materials Branch, review regulations prior to a hazardous waste shipment.**

Photo: Dietmar Krause

a particular hazardous waste stream, the process which generates the waste. If a different hazardous waste is added, we will ask the generating group to notify us."

"To increase Lab waste reduction activities, we will also work closely with Virginia Finley, the Environ-

mental Engineer in the Environment, Safety, and Health Division. If we at the Lab all work together, we can minimize waste, reduce environmental impact, avoid fines, and enhance our reputation as an environmentally conscious facility," observes Scott. ■

## Asbestos Survey Underway

**A** survey of the locations of asbestos, to be followed by an analysis of the potential hazard, is now being done at PPPL through contractors from BCM Engineering. It is being coordinated by Industrial Hygienist Bill Slaven of Environment, Safety and Health.

"We've undertaken this survey to identify the location of all asbestos and the hazard range of asbestos throughout the Laboratory," explains Scott Larson, Manager of the Transportation and Hazardous Materials Branch. He adds, "Once we have the asbestos report, we will set about correcting the most hazardous areas first, with the goal of assuring employee safety in the workplace."

The survey will impact employees only minimally. First, BCM engi-

neers will review the history of the building or area, including as-built drawings. Then they will do a visual survey and take samples for analysis from suspected areas. Once analyzed, these samples will help determine which areas require immediate remediation.

Says Larson, "We've been gradually removing asbestos from the Lab for years, and we had begun to take a more systematic approach before the Tiger Team came. Their findings corroborated our belief that we needed to complete the survey and work towards maximum employee safety."

For further information contact Scott Larson or the new Hazmat Coordinator Jim Scott. ■

## HOTLINE

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# What's Happening at PPPL?

## Employees Active in Professional Society

Two Health Physicists in the Health Physics Branch of the Environment, Safety, and Health Division (ES&H) at PPPL have recently been elected to posts in the New Jersey Chapter of the Health Physics Society.

Joseph Greco will serve as President-Elect for the 1991-92 year (September to May) and as President for the 1992-93 term. Joe was Secretary of the Chapter in 1987-88.

David Hwang was elected Treasurer for a two-year term (1991-1993), after have just completed a term as Secretary.

"We are extremely proud that members of ES&H, such as Joe and Dave, are willing to put out the extra effort to be leaders in their field. It's good for them professionally, and it bodes well for the Laboratory," commented Joe Stencil, Deputy Head, ES&H.

The New Jersey Chapter is one of 40 that make up the Health Physics Society in the U.S. As a society of professional health physicists, their stated primary objective is "...the development of scientific knowledge and practical means for protection of man and his environment from harmful effects of radiation, thus providing for its utilization for the benefit of mankind." ■

*Some of the 14 PPPL corporate award winners for the National Energy Foundation sponsored Student Exposition on Energy Resources (SEER) look at the one-quarter segment mock-up of the TFTR stainless steel vacuum vessel during their tour of the Lab, given by Richard Daugert, Engineering and Scientific staff. Mary Ann Brown, Executive Secretary to Head of the Engineering Department Mike Williams, served as a judge for SEER. The students were chosen based on the excellence of energy-related projects they researched and designed and were awarded PPPL ribbons, plaques, and a letter of commendation by Mary Ann Brown during Exposition events. In addition, winners toured the Lab and attended a Science Award Luncheon on May 24 in the PPPL Director's Conference Room. Many corporations provide awards, including such businesses as AT&T Bell Laboratories, PSE&G, and Warner-Lambert Company.*



Photo: James Faczak

*When President George Bush visited Princeton University's main campus on May 10, the PPPL Crash Fire Rescue Crew was standing by for arrival and departure of the five helicopters carrying the Bush entourage. The crew, with Marine One Helicopter in the background, are: (standing, left to right) Greg Tompkins, Gary Stines, Suzanne Willits, Harris Kohen, Steve Scholey, and Tom Ruffin; (kneeling) Wes Foraker, Gene Mitman, and Tom Furman.*

