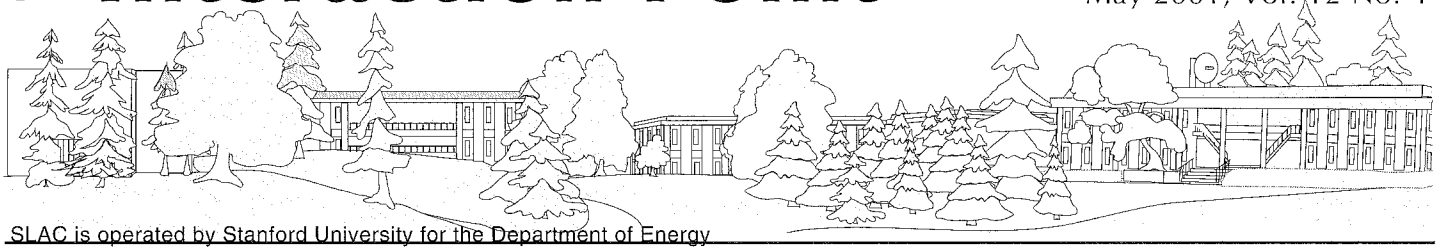
The Interaction Point

Events and Happenings in the SLAC Community
May 2001, Vol. 12 No. 4



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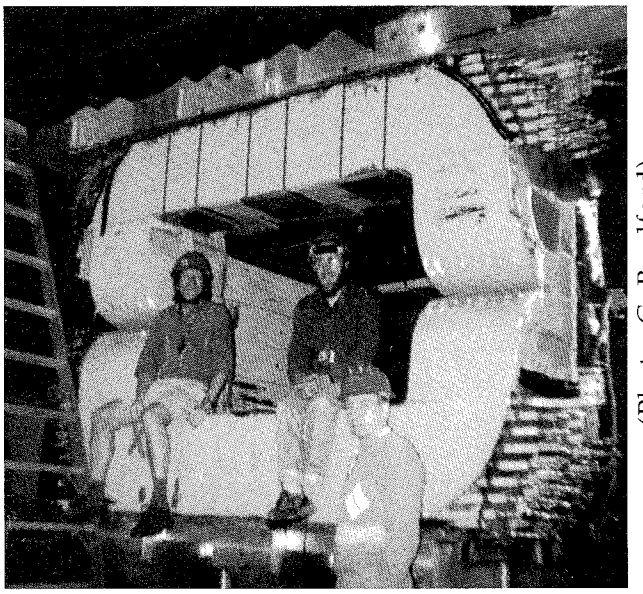
Diamonds to be used to Study Charm

MOST TEENAGE GIRLS QUICKLY grasp the everyday life connection between diamonds and charm. Now, a team of physicists plans to use paper-thin slices of diamonds to learn about a different kind of charm. In this case, "charm" is the name given to one of the six elementary particles known as quarks, the building blocks of most matter. Diamonds are an ideal crystal for producing high energy photon beams when electrons from the linac pass through them. High energy photons, or gamma rays, are very effective at turning into pairs of charmed quarks when they interact with a gluon inside of a proton or neutron. Thus, new information can be gleaned about the basic structure of ordinary matter using some rather exotic tools.

The idea of using diamonds to produce photon beams with desirable properties is not new; in fact, it was pioneered at SLAC in the 1970's. One of the big challenges was obtaining large-area wafers of diamonds with sufficient purity, free of defects and stresses. The diamonds were placed in a special holder (called a goniometer), used to align the diamond very precisely relative to the SLAC GeV electron beam. Measurements of the intensity of photons as a function of their energy were made, and distinct spikes were observed at specific energies, in excellent agreement with theoretical calculations. It is these spikes that make the use of crystals such as diamonds interesting. By proper orientation of the crystal, most of the gamma rays have a well-defined energy, a big advantage over regular photon beams, which have an almost constant intensity over the entire range of energies.

Interest in photon beams has been revived with the recent approval (in November 2000) of three experiments to take place in SLAC's fixed target facility, the venerable End Station A (ESA). The experiments were proposed by a group of about 50 physicists from 15 institutions (co-spokesmen are Peter Bosted and Steve Rock from the University of Massachusetts, Don Crabb from the University of Virginia, and Keith Griffioen from William and Mary). All three experiments will use photon beams from diamonds, but the physics goals and experimental setups are quite different for each experiment. To re-establish the photon beam, and upgrade the maximum energy from the GeV limit of the 1970's to 50 GeV energies available now from the



(Photo: G. Bradford)

(l-r) Steve Rock and Peter Bosted sit on the very large 100-ton dipole magnet. Bill Olson (EFD) stands nearby.

electron accelerator, a considerable amount of work will be done in the A beam line. The biggest job will be rebuilding the old magnets that deflect the electron beam into a beam dump (thus allowing only the photons produced in the diamond to enter into ESA). A new beam dump will also be installed, the goniometer refurbished, and new diamonds procured and tested.

Collimators in ESA will be used to sharpen the photon beam intensity spikes, and many instruments will be built to measure the intensity profile and other properties of the beam in the region where it will be used for physics experiments.

The first experiment, E160, should be ready for taking data in 2003. The goal here is to study how often a particle called the J/Ψ (pronounced jay-sigh) is produced when gamma rays interact with various nuclei, such as the nuclear cores of beryllium (made up of only 4 protons and 5 neutrons), and lead (composed of 82 protons and 125 neutrons). Protons and neutrons (generically called nucleons) are mainly composed of lightweight quarks (called up and down, with a little bit of strange ones), held together with force-carrying particles called gluons. On rare occasions, a photon

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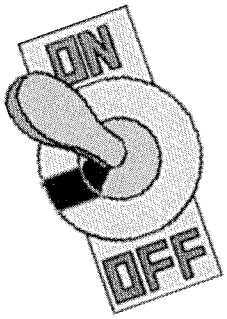


SLAC In-House Energy Management Program

ENERGY IS IN THE news! Some already know and others may be pleased to learn that for many years SLAC has had an on-going In-House Energy Management Program (IHEM) as required by DOE.

SLAC participates by initiating energy conservation projects, performing life cycle cost analysis and submitting these proposals to the DOE Federal Energy Management Program (FEMP) as funding requests, in competition with other DOE laboratories. The primary criterion for granting funds is the Savings to Investment Ratio measured over the life of a project. Through this program, over the last ten years we have received funds totaling about $7.2 million from DOE FEMP. With these funds we have implemented projects that include: installation of a synchronous capacitor for site power factor correction, klystron modulator upgrades for energy recovery, installation of linac remote utility monitoring and control system, installation of a Direct Digital Control Energy Management System (DDC EMS) to control main campus heating, air conditioning and chilled water systems, installation of Variable Frequency Drives (VFDs) at pumps and fan motors, and replacement of LCW pump motors with premium efficiency motors. This year we have submitted proposals for a few projects with a total estimated cost of $900K, primarily to upgrade inefficient indoor lighting.

The current California energy crisis has renewed public interest in energy conservation, and we at SLAC need to re-examine how we can help. We are planning more energy conservation projects. The most promising on-site projects with the best economics are: site lighting upgrades (such as replacement of inefficient lamps and ballasts), provision of occupancy sensors for indoor lighting, VFDs for pumps and fans, premium efficiency motors, DDC EMS expansion, and power factor correction.

We are also examining the use of Energy Saving Performance Contracts (ESPC). These contracts allow us to use private sector funds for projects with loan repayment from the energy cost savings. Thus, the initial capital investment is not from the SLAC budget and annual payments are equal to the cost of the saved energy. Lately, the ESPC contracts are increasingly popular at DOE laboratories.

In addition, it is important that we all help SLAC to conserve energy. Please implement simple energy conservation measures such as turning off printers, copiers, and monitors when idle; activating "power saver" and "sleep" features; shutting off coffee pots, radios, fans and other appliances in the office; and turning off lights when leaving a room. Another area with potential for significant energy saving is the experiment-related energy consuming systems. We would like to hear your ideas on this matter. Any suggestions or questions on any energy related issues would be appreciated. Please submit your ideas/ proposals to IHEM Program Manager Luda Fieguth, x3422, lcantor@slac.stanford.edu or Burl Skaggs, x2245, burl@slac. stanford.edu.

–Luda Fieguth

Director's Corner

There is no Director's Corner this month due to Jonathan Dorfan's travel schedule.

STC Award Presentation


(Photo: T. Peterson)

SLAC's Gene Holden (l) received a merit award from STC, presented by Emmy Aricioglu (r).

SLAC's ES&H DIVISION WAS rewarded for its efforts for technical publications with a "merit" award from the Society of Technical Communications (STC). Emmy Aricioglu, online competition manager for the STC, presented the award to Gene Holden, SLAC's ES&H Technical Editor. Holden led SLAC's efforts on the Annual Site Environmental Report (ASER) report, which was entered into the competition in the 'publications' category.

Aricioglu gave a brief presentation to the group regarding the attributes judges consider when looking at presentations in the various categories of competition. She said she would advise people who want to submit entries to the competition to consider this question: What's it going to take for me to get an "A" in this class?

And what do the judges look for? "It is that special something that makes one better than another, and our goal is to define that something," said Aricioglu. The STC organization is working to publish a set of guidelines, enabling people to use a checklist when they are working on entries for the competition. The guidelines should assist in streamlining and making the process work better from both sides.

–Teri Peterson

Diamonds to be used to Study Charm

(Continued from page 1)

from the gamma ray beam can merge with a gluon in a proton or neutron to form the J/Ψ particle, which itself is made from two relatively heavy charmed quarks. We want to study how the J/Ψ particle interacts with the other nucleons in a nucleus on its way out into free space. There are several theoretical predictions, but they don't agree with each other.

This experiment should be of great interest to physicists searching for a new form of matter called the quark-gluon plasma. This is because one of the ways they can look for the new plasma is a change in the rate of J/Ψ particles coming from collisions of heavy nuclei like gold or lead when these nuclei are sufficiently energetic. But to interpret their data, they need information from E160, where the reaction process is considerably simpler.

The heart of the experimental setup for E160 is the very large 100-ton dipole magnet previously used in the LASS experiment in the 1970's. Together with rather standard particle detector arrays, this will be used to search for a pair of muons (a muon is a heavy version of the more familiar electron) that come from the decay of the unstable J/Ψ particle. A thick layer of alumina will be used to filter out most of the copious particles that are not muons, allowing us to detect this rare signal without too much interference from "ordinary" gamma ray interactions with nuclei.

After E160, we plan to run E161, an experiment designed to study the role of gluons in defining the spin of nucleons. All nucleons spin about their axis with a certain regularity (in fact the smallest amount allowed by quantum mechanics). The question is: how do the spinning quarks and gluons inside the nucleon add and subtract from each other to give this result? We have already learned quite a bit about the quark contribution to this puzzle by scattering electrons from spin-oriented nucleons in ESA in the 1990's. Now, by using the same type of polarized target, we plan to study the gluon contribution through the reaction where a high energy polarized photon merges with a gluon to form two unbound charmed quarks. Eventually, one of these quarks is likely to decay into a muon, so we can use pretty much the same apparatus as E160 to detect them. A crucial feature of E161 is that the photon beam will be circularly polarized, which is possible because the electron beam that produces the photons can itself be polarized at the linac source. We will need to build a special apparatus to make sure the calculations of circular polarization are correct, because previous experiments only used linearly polarized photons from diamond crystals.

The last of the three experiments, E159, will use the same circularly polarized photon beam and spin-oriented nucleon target as E161. In this case, we will measure not just the rare charmed quark events, but all the possible reactions that can happen when a high energy photon is completely absorbed into a nucleon. By measuring this probability as a function of energy, we can test the validity of a well-known prediction, made by SLAC's Sidney Drell and others in the 1960's. This prediction relates our high energy measurements to a fundamental low-energy property of the nucleon called its anomalous magnetic moment. If the prediction is not verified by E159, it could hint at the importance of new particles or interactions beyond the current Standard Model.

All in all, these experiments will help in our basic understanding of the structure of matter in a new and exciting way. Best of all, the experiments are relatively inexpensive because much of the infrastructure is already in place. The electron beam that we will use can be shared with the *BaBar* program, thus making good use of the beam pulses not needed to fill the PEP-II rings.

For more information, please look at our web sites (from the SLAC Home Page, click on *Research Program*, then click on *E159*, *E160*, or *E161*).

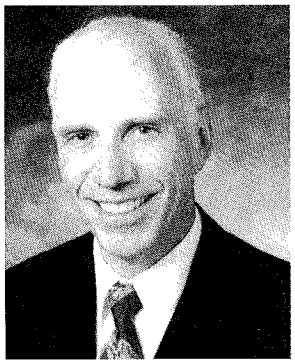
–Peter Bosted

New Manager of Telecommunciations

(Photo: T. Peterson)

DAVID HOWARD JOINED SLAC/SCS in March as the Manager of Telecommunications. Prior to joining SLAC, Howard had held various telecommunications management positions at Oracle, including being in charge of all of their telecommunication in the U.S. (43 locations, and 7000 users). Most recently, he was a independent telecommunication consultant. Some of you may have already met Howard when he interviewed ATOMs and others late summer 2000 for feedback on requirements for an upgraded phone system.

John Galayda–New Director of the LCLS Program



SLAC WELCOMES JOHN GALAYDA as director of the Linac Coherent Light Source (LCLS) Program. He will be joining SLAC on April 23 with a dual appointment as Assistant Director of SSRL and Assistant Director of the Technical Division, reflecting the important role of both organizations in the success of the LCLS.

Galayda has broad experience with electron accelerators, light sources, Free Electron Lasers (FELs) and management at national laboratories. This unique combination makes him the ideal person to lead the LCLS effort. He will replace Ewan Paterson, who has been acting in that role. His arrival marks an important milestone in making the LCLS a reality at SLAC.

After receiving his BA in physics (magna cum laude) from Lehigh University, Galayda did his graduate work at Rutgers, first in accelerator physics and then in theoretical physics. After receiving his Ph.D. (thesis title: The Dilation Operator in Gauge Theories), he returned to accelerator physics and joined the staff of the National Synchrotron Light Source (NSLS) at Brookhaven. At the NSLS he worked on accelerator design, rf systems, beam stabilizing feedback systems, accelerator controls and diagnostics, and machine physics. He rose to the position of Associate Chairman for Accelerators at the NSLS.

Galayda later joined the Advanced Photon Source (APS) at Argonne National Laboratory as Director of the Accelerator Systems Division. He directed the design, construction, commissioning, and operation of the very successful APS. Most recently, Galayda was the Deputy Associate Director of the Advanced Photon Source at Argonne. He is familiar with SLAC since he served on the Machine Advisory Committees of both PEP-II and the NLC. He has also been active in the management of the U.S. Particle Accelerator School.

Galayda's wife, Sharon, is on the nursing staff at the Loyola Medical School. They have two daughters, Jeanette and Carolyn. The Galaydas are close friends with SLAC mechanical engineer Carl Rago and his wife, a friendship that began when the two men were fellow students at Rutgers. Rago describes Galayda as quiet, takes his job seriously, is a hard worker and very dedicated. But he is not all work and no play. Galayda likes "muscle" cars, running, and karate. He reads a lot, and has been known to play a practical joke on occasion.

–Lowell Klaisner

New Technical Division Department Announced

(Photo: T. Peterson)

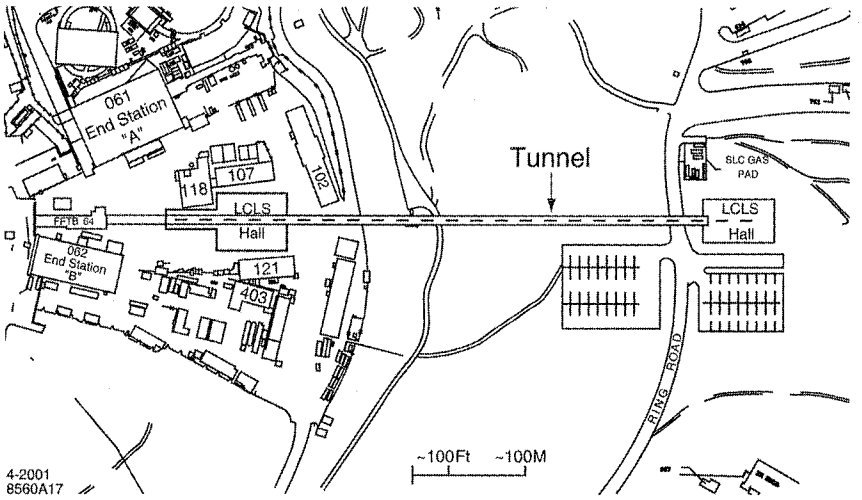
EWAN PATERSON, ASSOCIATE DIRECTOR of the Technical Division, recently announced that Kwok Ko is the head of a new department named Advanced Computations, effective April, 2001. Cho Ng will serve as Ko's deputy. This new department will have the exciting mission of building a world-class program based on High Performance Computing (HPC). It will focus on developing advanced computational techniques and resources for accelerator and other scientific applications.

Ko received his Ph.D. in Plasma Physics from the University of Southern California in 1979 and joined SLAC in 1989 as a physicist leading the Numerical Modeling Group in the Accelerator Research Department A. This group has provided advanced computational and modeling capabilities for the design of next generation accelerators such as the Next Linear Collider (NLC), and for the improvement of existing facilities like the PEP-II *B* Factory. Ko was co-Principal Investigator (PI) of the DOE Computational Accelerator Physics Grand Challenge project and is now co-PI on the proposed Advanced Computing for 21st Century Accelerator Science and Technology, a multi-lab and university collaboration to be funded by DOE's Science Discovery through Advanced Computing (SciDAC) initiative. "SciDAC will provide a great boost to the use of HPC in accelerator simulations," said Ko. SLAC is strongly supporting these endeavors as one of its core competencies.

The Advanced Computations Department will provide computational and modeling support for present and future accelerator research and accelerator projects both internal and external to SLAC. This emphasis on advanced computations and its associated software and hardware is consistent with the Strategic Framework set forth in the DOE Science Portfolio, which considers scientific simulation as one of the Extraordinary Tools for Extraordinary Science. The department will continue to focus on the development of parallel software and, in collaboration with SLAC's Computing Services (SCS), will actively pursue cluster computing as a viable production platform for supercomputing. "R&D efforts in HPC entail substantial investment in building the computing infrastructure, as there is little leveraging off the commercial marketplace," Ko explained. "They require a multi-disciplinary team with expertise in scientific computing, applied mathematics, computer science, software engineering, and other fields working together in an organized fashion."

–Janice Dabney

Linac Coherent Light Source



THE NEXT MAJOR MACHINE construction project for SLAC will be the Linac Coherent Light Source (LCLS). This project will follow the upgrade of the SPEAR facility, SPEAR3, and continue to strengthen SLAC's leadership role in state-of-the-art light sources. A focused research and development program on this new machine was begun two and a half years ago. The project expects to be made official this summer with the DOE issuing Critical Decision 0 (CD-0), Approval of Mission Need. Construction is planned to begin in fiscal year 2004 (October of 2003). The machine will be completed in September 2006. The project cost, including the experimental halls and initial experiments, will be comparable to the $177 million cost of the PEP-II machine (not including *BABAR*).

The LCLS will be a major advance in a new generation of light sources. It uses x-rays produced when an intense pulse of electrons passes through an undulator. The pulse is a sphere of electrons approximately a thousandth of an inch in diameter with a peak current of over 3,000 amperes and an energy of 14.35 GeV. This bright beam is made possible by beam handling techniques developed first at the SLAC Linear Collider, then for the Next Linear Collider, and by recent developments in low-emittance rf electron guns. The LCLS undulator will be installed in the Final Focus Test Beam (FFTB) tunnel after removal of the existing FFTB equipment.

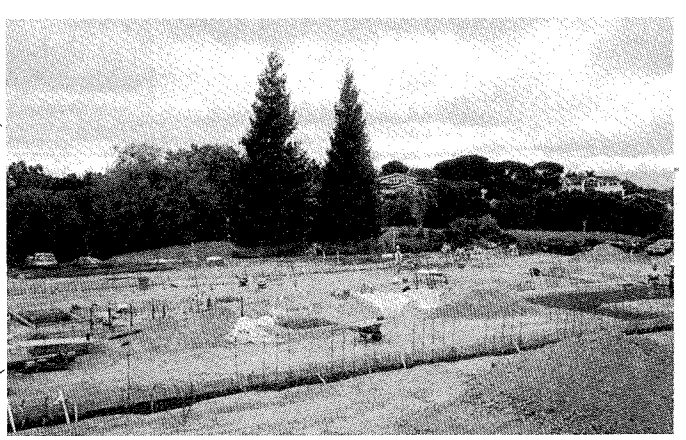
Two new experimental halls will be built. The near hall will be in the research yard at the end of existing FFTB tunnel (see figure). The far hall will be just east of the ring road near the collider hall. The floor of this hall will be approximately 20 feet below the surface, and a user lab and office facility will be on the surface. A new tunnel will be drilled through the hill at the east end of the research yard to connect the two halls.

The commissioning and characterizing of this unique machine will add new information about the operations of Free Electron Lasers (FELs) at these short wavelengths (1.5 Å) and high powers. Since the wavelength of the x-rays is comparable with the interatomic spacing in molecules, the LCLS allows experimenters to observe the structure of complex molecules in a whole new way.

Initial experiments have been identified in five areas of research: 1) atomic physics; 2) plasma and warm dense matter; 3) structure of single particles and biomolecules; 4) femtochemistry; and 5) nanoscale dynamics in condensed matter. Experimental groups have been formed in each of these areas and exciting areas of research have been defined. These users eagerly await the beginning of operation of the LCLS.

–Lowell Klaisner

Research Office Building Construction Progress



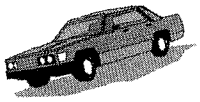
(Photo: T. Peterson)

The RESEARCH OFFICE BUILDING (ROB) costruction (pictured above in mid-April) is on schedule, with an expected completion date of December 2001. The project team is working closely with the project's general contractor, W.L. Butler, to try and improve the building completion date by a month or so (weather permitting).

Most of the earth-moving activity was completed in late March, thereby improving traffic flow and safety on the Loop Road. People still need to be cautious when driving by the construction area. Building footings, foundation, and on-going site civil work (plumbing, electrical, sewer) began in April. Structural steel will follow in May. By the end of June, the building shell (including roof) should be complete.

If you have any construction questions or concerns, please contact Hieu Dao at x8778, or Kingston Chan at x3894.

–Hieu Dao



A Few Words About SLAC Vehicles

AS A RESULT OF the merger of the Facilities and Plant Engineering departments, Site Engineering and Maintenance (SEM) became the fleet manager for all government vehicles on site. This includes ensuring proper usage and care of government vehicles and adherence to Federal guidelines and regulations. Fleet administrative responsibilities are handled through SEM's Transportation Group.

With DOE and GSA concurrence, SEM revised and rewrote the old SLAC guidelines and policies related to the proper use and care of government vehicles. The old policy was formerly Chapter 14 in the *SLAC Administrative Handbook*. The latest version is now published on the SEM website at `http://www-group/sem/transportation/UsingGovernmentVehicles.htm`. Copies are also available at the Transportation office in Building 81.

Each SLAC vehicle will have a copy of this handbook that must remain with the vehicle. Vehicles covered under this policy are categorized as "Light Duty" and "Heavy Duty," and include automobiles, trucks, vans, scooters, electric carts, and some heavy-duty vehicles. The *Using Government Vehicles* handbook contains descriptions of duties for committees and groups related to transportation, as well as custodian and vehicle operator responsibilities and duties. It also contains fleet management policies and procedures clarifying often misunderstood "Do's and Don'ts."

Some specific areas being highlighted are:

- Vehicle use at SLAC is a privilege, not a right. Abuse of the rules could result in loss of this privilege.
- Only drivers with a valid California Driver's License or a California-recognized Driver's License issued by any other state or foreign jurisdiction may operate government vehicles.
- Vehicle custodians, especially custodians of pool vehicles, have clearly defined responsibilities that must be adhered to.
- Non-SLAC employees may use SLAC or government vehicles when they have an approved "Vehicle Use Authorization for Non-Employees at SLAC" form.
- Personal business that may be coincidental to SLAC business is not allowed. For example, you cannot stop at the bank while you are out on government business, even if it is close by. By the same account, you may not use a government vehicle to go to the SLAC cafeteria for lunch.

Please note that SLAC profits by using Government vehicles, as they are provided at greatly reduced prices. Participation in this program also entitles us other advantages such as reduced costs in acquiring alternative fuel vehicles. So remember: adherence to the vehicle "Policy and Procedures" is a small price to pay for all of the benefits we gain.

Questions regarding policy and procedure can be referred to Pete Budrunas (x2271; peterb@slac.stanford.edu) or Sally Campo (x2250; campo@slac.stanford.edu).

–Peter Budrunas

Meet Maura Chatwell

(Photo: T. Peterson)

MAURA CHATWELL JOINED THE SLAC staff formally (again) in December 2000. She is coordinating the SLAC Summer Institute program and is SLAC's Conference Coordinator. Her previous two fixed-term positions with SLAC were a natural lead-in for this position—she was the conference coordinator for the Lepton-Photon 1999 Conference at Stanford, and again for the Linac 2000 Conference in Monterey, California.

In 1989 Chatwell interviewed for a secretarial position with Dick Taylor. Taylor commended her by saying, "you passed the intelligence test—you found my office!" She soon found a different type of position when Taylor suggested that she interview for a 6-month fixed-term Conference Coordinator position for the Lepton-Photon 1989 Conference.

"I jumped in feet-first and learned everything from the ground up," Chatwell commented. She went on to work in the Technical Division in several different groups for about 8 years, leaving SLAC to move to the Los Angeles area for about six months ("What can I say? I was having a mid-life crisis!" says Chatwell now). She returned to the Bay Area and went to work at Stanford University in the Genetics Department.

In 1998 the Lepton-Photon 1999 Conference was looking for a Conference Coordinator, and who should apply? Chatwell was again chosen to head up this Conference and, because of the outstanding job she did, Ron Ruth approached her to ask if she would coordinate the Linac 2000 Conference.

During the planning for Linac 2000, the directors of the SSI program approached Chatwell to see if she would be willing to coordinate the program for 2000. Since she had already been hired for the Linac 2000 Conference, she had to decline.

Her Conference Coordinator position will ultimately report to the newly posted position of Communications Group Director in the Director's office.

–Teri Peterson

Bienenstock Returns from Washington, D.C.

(Photo: T. Peterson)

A FAMILIAR FACE HAS once again appeared at SLAC. Artie Bienenstock, who served as Associate Director for Science in the Office of Science and Technology Policy (OSTP) in Washington for 3 years, has returned to continue his life's work here in the Bay Area.

Bienenstock graduated from Harvard, came west to Stanford, and participated in writing the original proposal for what was then the Stanford Synchrotron Radiation Project (SSRP). He served as acting Associate Director from 1973-1978 on campus, while holding the post of Vice Provost of Faculty Affairs. When SSRP became the Stanford Synchrotron Radiation Laboratory (SSRL) in 1978, he was its first Director, and held that position when SSRL became a division of SLAC in 1992. In addition, he assumed the title of Associate Director of the SLAC SSRL Division.

Early in 1997, with a 20-year milestone as SSRL Director approaching, Bienenstock contemplated stepping down to take a sabbatical and decide what to do next. "I'd thus far experienced an exciting career and was looking forward to a return to research and teaching at Stanford University," he said. But this was not to be! In the spring of 1997 he got a call from the White House, asking him to "come to Washington" the next day. There he met with Jack Gibbons, the President's Science Advisor, and Williams Wells, consultant to the OSTP. By the end of the evening, Bienenstock had been offered the position of OSTP Associate Director for Science.

Looking back, it was a difficult decision. "I was looking forward to my sabbatical, getting back to research, I was mentoring a graduate student, and my first grandchild was on the way," said Bienenstock. On the other hand, he was concerned about some of the things that were happening, such as the lack of funding for energy research programs at laboratories across the country, including SLAC and the SSRL Division. "I believed it was worth trying to improve this situation," he said.

After talking with his family (his wife, Roz, held a leadership position in the American Lung Association of California and became Chairman of its Board), Bienenstock decided he would accept the nomination and, if confirmed, return to Washington to fill the term of the position. "Having a solid, 40-year marriage made it easier for both of us to agree that the effort was worth the sacrifices," he commented. He was confirmed and became OSTP Associate Director for Science on November 12, 1997.

For the next three years in Washington, Bienenstock's calendar was filled with meetings geared to change mindsets. With a small budget, the role of the OSTP office is to advise the President on matters relating to science and technology, as well as other matters where scientific input might be important; to manage scientific/technological interagency programs; and to work with the Office of Management and Budget (OMB). He was particularly concerned about the fact that the Administration and Congress had continued to increase funding for the National Institutes of Health (NIH), while funding for other agencies supporting scientific research had not increased significantly.

Bienenstock also holds a firm belief that affirmative action is important in science and technology, as well as for the entire nation. The OSTP documented this with demographic analyses, and issued a report. They worked with 25 companies, each of which pledged $10M to assist in the encouragement of women, minorities, and persons with disabilities to enter the science and technology areas. The OSTP worked with the President's One America Office to help raise awareness that science and technology fields are worthwhile opportunities for these groups.

Bienenstock reflected on the Clinton administration's commitment to improving the participation of minorities in the country's economic and social life. He found he was able to fit into the Administration effectively because of his affirmative action experience and his commitment to increasing the involvement of women and minorities in science and technology. In the end, these combined commitments helped science, because the science and technology agenda was increasingly perceived as an important component of the Administration's societal goals.

Bienenstock considers the Administration's active leadership in increasing budgets for the physical and social sciences and engineering to be one of the most important things he facilitated. Working with Harold Varmus (Director of NIH), Duncan Moore (Associate Director for Technology at OSTP), Thomas Kalil (Deputy Director of the National Economic Council), and Neal Lane (Assistant to the President for Science and Technology and Director of OSTP), Bienenstock saw the fruits of his labor in the increased funding for many sciences and research and development.

In June's issue...Artie Bienenstock ends his term in Washington and will decide where he wants to go next.

–Teri Peterson

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News from the Web Information Manager
Ruth McDunn, mcdunn@slac

Search Changes

Search | Reset

Do you have a search box installed on one of your web pages? If you are using the InfoSeek index, now Inktomi, you will need to make a change in the form action. SLAC is in the process of installing a new search web server. In preparation for turning off the old server, you should change the form action from `action="http://www3.slac.stanford.edu:8765/query.html"` to `action="http://www-search.slac.stanford.edu:8765/query.html"`.

If you would like to create a form to search on your website, sample code is shown below. In this case the form will search the TechPubs help pages (test it out at `www.slac.stanford.edu/~mcdunn/search.html`):

```
<form action="http://www-search.slac.stanford.edu:8765/query.html"
 method="GET"><p>
<input type="hidden" name="col" value="slacweb">
<input type="hidden" name="qp"
 value="+url:www.slac.stanford.edu/grp/techpubs/help/">
<input type="hidden" name="qc" value>
<input type="text" size="30" maxlength="2047" name="qt"><br>
<input type="submit" value="Search">
<input type="reset" value="Reset"></p>
</form>
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Old Lesson, Worth Remembering

A LONG-TERM EMPLOYEE of SLAC recently referred to the linac as a "national treasure" which we should work carefully to preserve and protect. He spoke of the personal responsibility we have to leave things as we find them, referring to lessons we all learned in childhood.

Whether this approach means including plans for the disassembly of a completed project in your initial proposal, wiping up coffee you spill in the hallway, or taking those scraps of wire you clipped with you—it's all with the same end in mind. Those following you (literally or figuratively) will be able to work more efficiently and safely if they don't have to clear the shared work area first. In addition, they won't waste valuable time (= money, remember?) trying to determine all of the places you left spare parts or cleaning up debris left behind. Those who come later may not know what hazards exist and may spend big bucks (as in the case of unmarked containers of waste) determining the appropriate action.

So the next time you say "clean up your mess!" to your child, grandchild, or neighbor's little darling, just remember to listen to yourself when you return to work.

–Janice Dabney
Chair, Operating Safety Committee

Milestones

RETIREMENTS
Pera, Richard, MFD, 3/31/01

DEATHS
Eisele, Robert, retired from EFD, on 3/20/01
Sylvia, Mel, retired from EFD, on 3/31/01

MAJOR EVENT
Perl, Martin, May 2 - May 9. Giving two invited lectures in connection with the 100th anniversary of the start of the Nobel Prize in Sweden.

Email milestones to tip@slac.stanford.edu. Also, look at `www.slac.stanford.edu/pubs/tip/tip.html` for a link to our new website on expanded MILESTONE coverage!

Work Safe, Work Smart

An injury involving days away from work occurred on 4/11/01, according to Sharon Haynes, Worker's Compensation Coordinator. The number of calendar days between then and the last injury is 23 days. SLAC's record number of days between claims involving days away from work remains at 184 days.