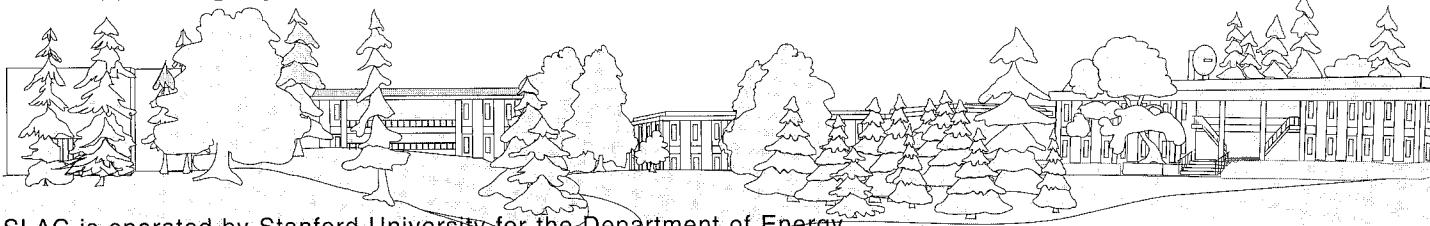


# The Interaction Point

Events and Happenings  
in the SLAC Community  
June 2002, Volume 13, No. 5



SLAC is operated by Stanford University for the Department of Energy

## 2002 Employee Recognition Award Recipients Honored

THE 2002 EMPLOYEE RECOGNITION AWARD recipients were honored at an award luncheon held at the Faculty Club. These annual employee recognition awards are presented to SLAC employees who demonstrate good citizenship and who, by their helpfulness and courtesy to others, make SLAC a better place to work.

Director Jonathan Dorfan presented each awardee with a certificate and a "Globie," a trophy with a crystal globe, representing the theme: World Class People Make a World Class Laboratory. Their pictures will be hung on SLAC's own "Wall of Fame" on the second floor of the A&E Building. In addition, they will receive a letter of commendation in their personnel file.

This year's 43 recipients were nominated by their peers and were selected from among 175 nominations by a committee of 14 volunteers, representing a cross-section of SLAC. The awardees ranged in service to SLAC from 9 months to over 30 years and they represented all areas and categories of SLAC employees.

Committee members Ziba Mahdavi and Liam Robinson, Mistress and Master of Ceremonies for the Awards luncheon, read excerpts from the nominations each awardee received.

-Carmella Huser

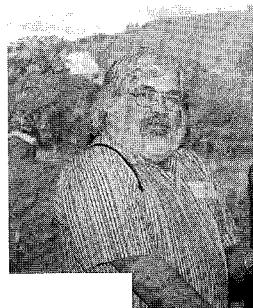


(Photos: D. Rogers)

*This year's awardees in alphabetical order are: Nick Arias, Ron Badger, Ron Barrett, Art Candia, Teresa Cervantes, Ambrose Chu, Gerald Collet, Alan Conrad, Bob Cook, Chip Dalby, Wanda Elliott, Vickee Flynn, Bob Fuller, Aaron Gooch, Gene Holden, Gary Howell, Jean Hubbard, Carmella Huser, Ralph Jacob, Doug Kreitz, Ziba Mahdavi, Jim McDonald, Tim Miller, Daphne Mitchell, Mike Mitchell, Naomi Nagahashi, Marty O'Donoghue, Kazuko Onaga, Sandy Pierson, Liam Robinson, Jasmine Rogers, Gordon Sausa, David Shelly, Satwinder Singh, Erin Smith, Frank Spiller, Michael Stanek, Michelle Steger, Kirk Stoddard, Ann Trautwein, Teresa Troxel, Kurt Vaillancourt and William Wisniewski.*



Jasmine Rogers



Gary Howell



Teresa Troxel



(l-r) Ambrose Chu and Jonathan Dorfan



(l-r) Tom Glanzman and Kazuko Onaga

# Director's Corner



by Jonathan Dorfan

THIS YEAR SLAC WILL be 40 years old—not a long time in the history of science. Forty years of research at SLAC has remodeled humanity's understanding of the nature of matter and by extension the nature of the Universe. Hard work, profound and subtle insight, unexpected twists, dogged determination and unstinting professionalism and leadership have characterized these 40 exciting years. Our product has been historic scientific discoveries, innovative ideas and methods that were absorbed by the world scientific community and, in many cases, adopted as far-reaching applications in everyday life. It is a wonderful achievement and well worth a celebration.

Three separate, but coordinated, events are being planned to mark SLAC's 40th anniversary. First and foremost SLAC staff, past and present, will be celebrated and congratulated. Your efforts and skill built up our international reputation. On Saturday, September 14th, there will be a special 40th Anniversary Family Day. Mark it in your calendar now and bring your family and friends. The theme will be "The Sixties" and a committee led by Carmella Huser is hard at work organizing this party.

The second part of our 40th anniversary celebration will be on held on October 2. This high profile event will focus national and international interest on the outstanding contribution SLAC has made to scientific progress. We are inviting the President of the United States, the Secretary of Energy and other very high-level DOE officials, Californian politicians, world-renowned physicists, and directors from laboratories around the world.

Our central message is that the 40th anniversary celebration is an opportunity to pay tribute to the work of scientists, researchers and universities, and to reaffirm

a commitment to the scientific research and education that underpins our nation's quality of life and national security.

The anniversary celebration will be held in a very large tent erected on the green. We anticipate that some 1000 people will attend the event, and I heartily encourage and invite all SLAC staff to share in this recognition of their work. Sid Drell is leading a committee that is organizing the detailed planning of the event including the program, invitations, marquees, audio-visual support, catering, publicity, documentation, security and transportation. As the event draws closer, many of you will be asked to help ensure the smooth running of the day.

The program for the 2nd of October is already established. After my welcome, there will be two or three short speeches from our VIP invitees. Then, a series of speeches will focus on SLAC's achievements:

⟨SLAC—the Early Days: Pief Panofsky  
⟨What SLAC Has Given to High-energy Physics: Haim Harari  
⟨SLAC's Contributions to Technology: Burt Richter  
⟨SLAC and Synchrotron Radiation: Robert J. Birgeneau  
⟨I will close the afternoon with a look at SLAC's future.

The third part of the 40th anniversary celebrations will be a series of seminars leading up to the event in October. These talks will cover the history, science and sociology of SLAC in greater detail. As a commemoration and memento, Jean Deken is preparing a photographic history of SLAC. A copy of this album, covering the first 40 years of our laboratory, will be given to all staff as a souvenir.

Thanks to all who have already put in so much work to prepare the different events. I look forward to celebrating our remarkable past, and predict an equally remarkable future.

## Hubbard Wins Award



(Photo: D. Rogers)

LAST MONTH, IT WAS announced in TIP that Jean Hubbard, PUR, (shown at left during the Bike Faire) won the "Trailblazer Leadership Award 2002," for making a difference in the business, community and the environment, from American Transitech, Inc. Hubbard recently set up a program at SLAC for recycling and reusing old toner cartridges. This program helps in several ways: it feeds the homeless through the donation of \$1/cartridge that goes to the Second Harvest Foodbank. It saves SLAC \$2-4K a year in disposal costs. The cartridges are reused if at all possible. If they can't be reused for some reason, they are sent back to the OEM (original equipment manufacturer) for them to recycle.

# Plasma Wiggler Generates Collimated Beam of Intense X-Rays

SYNCHROTRON LIGHT SOURCES ARE used for basic and applied research in physical, chemical and biological sciences and engineering. They use magnetic undulators and relativistic electron beams to generate photon beams of extremely high brightness in the x-ray region.

In a recent paper published in *Physics Review Letters*, 88, 135004, 2002, a collaboration of scientists from USC, SLAC, and UCLA has shown that an ion channel, self-induced by an electron beam as it propagates through a plasma, can be used to wiggle electrons thereby generating a collimated beam of x-ray radiation. Because a dense column of ions can provide an effective wiggler parameter that can be far greater than that provided by a typical magnetic undulator, such plasma wiggler could impact the next generation of light sources.

The physical principle of the plasma wiggler is as follows. When a dense beam of electrons is sent through a column of plasma the head of the electron beam blows out the plasma electrons and leaves behind a column of ions. The ions exert a radial focusing force on the rest of the electron beam causing individual electrons to oscillate about the axis of the ion channel. As electrons undulate in this ion channel, they spontaneously radiate forward within a narrow cone angle. The resonance frequencies of the emitted radiation are typically in the x-ray range for an ultrarelativistic electron beam, and the total spontaneously emitted power scales as the square of the plasma density.

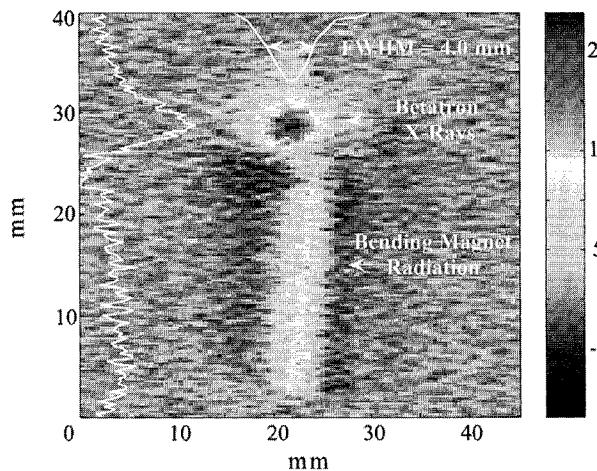
In the experimental work published in the April 1, 2000 issue of *Physics Review Letters*, a USC, SLAC and UCLA collaboration shows experimental results from SLAC experiment E157 that demonstrate x-ray emission from a plasma wiggler obtained using the SLAC 28 GeV electron beam.

The electron bunches were typically 4 trillionths of a second long and contained 20 billion electrons in each bunch. The bunches were sent through a 1.4 meter-long plasma produced by laser ionization of a column of lithium vapor.

As the beam was tightly focused at the entrance of the plasma, the density of the electron beam was greater than the density of the plasma. The electron beam exiting the plasma was bent away by a dipole magnet. The x-rays emitted by the undulating electrons were recorded 40 meters downstream of the plasma.

As expected, the total x-ray energy in the 5-30 KeV range was seen to scale as the square of the plasma density. Similarly, the divergence angle of 0.1 milli-radian of the forward-emitted x-rays was also in good agreement with theory.

Even in this first demonstration of a plasma wiggler, the brightness of the x-ray beam at 14 KeV energy was comparable to what is achieved in current synchrotrons. These results are significant because a plasma wiggler comprised of only a plasma cell is a far simpler and cheaper solution than are the magnetic undulators used in current machines. Plasma wiggler also offer the possibility of



(Courtesy of S. Wang)

A processed image on a fluorescent screen by x-ray emission from a plasma wiggler (circle) at the top and by synchrotron radiation produced by a bending magnet (stripe) below the circle.

varying the undulator period of the electrons by simply adjusting the density of the plasma. Plasma wiggler, therefore, have possible applications to future generations of light sources.

—Shuoqin Wang, UCLA

## Bike Faire Draws a Crowd



(Photo: D. Rogers)

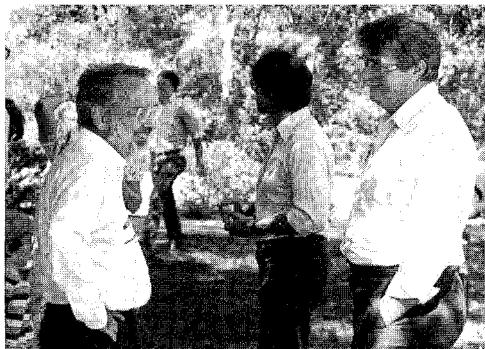
(l-r) Adriadne Scott, Stanford Bicycle Coordinator; Menlo Park Mayor Steve Schmidt; Harris Kuhn, Stanford Public Safety; and Neil Calder, SLAC Communications Director.

MANY PEOPLE TOOK IN the recent Bike to Work Faire (sponsored by OSC & HR) to learn more about cycling to SLAC and in the surrounding areas. Menlo Park Mayor Steve Schmidt, an avid cyclist, was the keynote speaker. The grand prize—a Specialized Hardrock Bicycle—was won by Sharon Oden (ESH). Thanks to the Bike Subcommittee—Rick Challman, Neal Adams, Joe Kenny, Janice Dabney, and Ariadne Scott (campus). Special thanks go to Butch Byers and Rick Yeager for their help.

# Thirty Years of

EVERY SUMMER, FOR TWO weeks in July or August, several hundred physicists come to SLAC for the SLAC Summer Institute (SSI) to learn about what's going on at the front edge of particle physics. This summer, the SSI is celebrating its 30th year of teaching physicists, post docs, graduates, and undergraduates.

David Leith (EB) and Sid Drell (DO) founded the SSI in 1973, and Leith continued to run it for the next 25 years. He says that summer schools for younger physicists were very popular through the 1950s and 1960s, but by the 1970s, many were getting cut as budgets tightened. At the same time, SLAC was trying to establish its own commitment to academics by creating a stronger bridge to the Stanford campus and attracting graduate students. As the connection between the lab and the university campus grew, Leith and Drell saw the opportunity to start the Summer Institute.



"We saw it as a major commitment of SLAC faculty to graduate education," says Leith (shown above, right, with Charles Prescott, left). "It was a place where young people could come to study, and to learn how to give talks. It wasn't just for physics stars, but a place where younger people could share their results with the next generation of emerging leaders."



(l-r) Ken Moffit with Michael Peskin, who has given the most talks during SSI—10 to date.



Back row: (l-r) Gary Feldman, Jonathan Dorfan. Front row: (l-r) Harvey Lynch, David Leith, and Fred Gilman during an SSI lecture.

Initially, Leith says, SLAC got support for the SSI from the Department of Energy and the National Science Foundation. "But eventually," he says, "we stopped chasing dollars and just ran it out of the lab budget."

The SSI's premiere topic in 1973 was "Deep Inelastic Electroproduction Weak Currents and Interactions," and more than 250 students attended. Over the years, the institute has remained popular, and attracts several hundred participants annually, mainly graduate students and post docs. Last summer, 179 physicists and physics students attended SSI for "Electroweak Symmetry Breaking." About 200 participants are expected for "Secrets of the B-Meson" at the SSI this year, starting August 5.

Charles Prescott has been organizing the SSI for the past five years. He says that each summer, the institute has a different theme—often, a current physics topic. "Usually they have to do with what's going on in the lab," he says. "For example, one summer before we started *BABAR*, we did CP violation."

The structure of SSI has changed very little over the past thirty years. It lasts for two weeks, with the first week and a half devoted to lectures by leading physicists. The last few days are reserved for a topical conference, where speakers talk about the experiments they are currently working on. Lunches, several dinners, and frequent coffee breaks encourage the participants to socialize and make connections.

The program usually comes off with only minor glitches. "One year, we had just finished setting up for dinner on the lawn when the sprinklers went off," recalls Leith. "Another year, a participant arrived with a cat on a leash, indignant that we wouldn't take the cat for walks during the lectures. That's an undercurrent of running something for a few hundred people—there's always one idiosyncratic person who's complaining."

Recently, SSI added a poster session, where participants can present posters that summarize their own research. It gives conference participants an opportunity to learn about what other participants are doing, and show off their own research.

# SLAC Summer Institutes

An annual soccer game that pits SLAC physicists against SSI students has also become a mainstay of the institute. Members of the SLAC team say they win every year, a fact that may be disputed by SSI team members.

Aside from sports and cutting edge topics, SSI offers renowned speakers. Although there are too many to list, lecturers have included Nobel Prize winners Martin Perl, Burton Richter, and Tsung-Dao Lee, in addition to the former chair of the Nuclear Regulatory Commission Shirley Jackson, and many well-known experimentalists and theorists. Michael Peskin (Theory) has the unconfirmed honor of having given the most talks with a total of ten, though Haim Harari is a close second with nine talks presented.

"What I associate most with SSI is the youth, curiosity

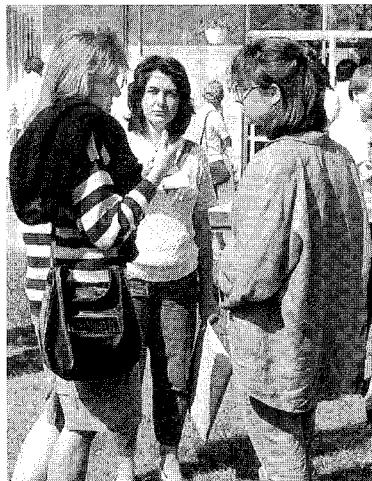
and enthusiasm of the keen young participants who loved the interaction with staff," says Leith. "Between the lectures, dinners, and weekend trips, there was a lot of interaction with the older physicists."

This summer's SSI on *B*-Mesons will cover their past, present, and future, as well as charmed particles and kaons, and their role in particle physics. Graduate students and postdoctoral research scientists are encouraged to attend SSI, which will be held August 5–16. They should find the Institute informative and stimulating. More information is available on the SSI 2002 website, by calling conference coordinator Maura Chatwell at (650) 926-4931, or by sending email to ssi@slac.stanford.edu.

—Desiree Scorcina



The 1999 SSI Soccer Team is shown above. They tied the SLAC Team after a hard-fought game. Lance Dixon, a present-day organizer of the SSI, is shown in the first row, second from right.



Some students discuss the talks during a break.



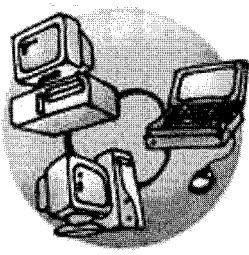
(l-r) Joe Ballam, a former Associate Director for Research (now deceased), takes a few moments to talk to Martin Perl.



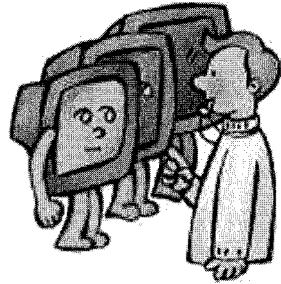
John Jaros, who along with Charles Prescott and Lance Dixon, co-chairs the SSI organizing committee.



(l-r) Burton Richter, Hobey DeStaeber, and Pief Panofsky.



# Update on Windows Workstation Upgrades



BY THE END OF 2003, Microsoft will stop the support of Windows NT4. Therefore, SLAC needs to schedule the migration of Windows workstations and servers to newer supported versions of Windows. Microsoft released Windows XP Professional at the end of 2001. Since Microsoft will support Windows XP for a longer period in the future than Windows 2000 Professional, SCS and the NT Administrators have decided that the bulk of Windows NT workstations will directly migrate to Windows XP. However, there are many preparations that need to be made before the migration can start. The following is a summary of the issues that SCS and the department NT Admins are working on.

**1) Hardware:** Some hardware will need to be upgraded since Windows XP has higher minimum requirements than Windows NT. Guidelines will be forthcoming on the minimum CPU and memory. In order to complete the migration by the end of 2003, there are two fiscal year cycles to upgrade the hardware. Peripherals will also need to be checked for compatibility.

**2) Software:** Software needed by the user or the department for SLAC business will have to be tested for compatibility with Windows XP. Some software will need to be upgraded, and considerations will need to be given to users who interchange files using the same version of the software.

**3) Anti-virus:** The current anti-virus software (InocuLAN) is incompatible with Windows XP, and the entire site will have to be upgraded to InoculateIT v.6. The rollout of InoculateIT should have been completed by the end of May.

**4) Standard installation (Windows XP Boot Floppy):** SLAC uses a network install (the Boot Floppy), so that the operating system and applications are all installed in a standard way. This greatly enhances supportability for SLAC's 1,700 Windows systems. The network install has to be modified for the new operating system and new applications (Office XP, FrontPage 2002, InoculateIT, etc.). The Windows Upgrade Team has tested an alpha version of the Windows XP Boot Floppy. A beta version will be released at the end of May 2002 to those NT Admins who have attended training. The production version that will be

used for migrating the user community will not be available until later this year.

**NOTE:** All pre-production boot floppy versions of Windows XP will need to be re-installed with the production version when that becomes available. These pre-production versions will be available only to the NT Admins.

**5) Security and network disruptions:** Windows XP has a few functions that allow it to build a small network at home. While this may be convenient for the home users, this can cause serious disruptions to the SLAC network when these functions are left on (causing network and/or security problems by bridging different networks, computer name resolution problems by dispensing network addresses, etc.). Windows XP is meant to work within a Windows 2000 Active Directory infrastructure for such features to be controlled. The estimated schedule for a production Active Directory at SLAC is the end of 2002.

**6) Support personnel and documentation:** An important factor for rolling out and supporting Windows XP is that the support personnel (department NT Admins, the SCS HelpDesk, etc.) need to be trained on the new operating system. By now, the initial training for NT Admins will have been completed. There will need to be a period for NT Admins to test the beta version of the Boot Floppy. Documentation also has to be written to assist the users with an orderly rollout.

In summary, the bulk of Windows desktops will be on Windows NT until SLAC is ready for a migration to Windows XP late this year (Windows 2000 for desktops is also available). Laptops will continue to be installed with Windows 2000. Users are urged not to bring Windows XP onto the SLAC network until the preparations are ready.

Regular updates and discussions are held at the NT Administrator meetings (announced through the listserv ntadmin-l@slac.stanford.edu). For further questions, please e-mail desktop-admin@slac.stanford.edu.

*-Windows Upgrade Team*

## Tips from TIP

**Employment Services** is seeking opportunities for some very sharp and willing students for the SLAC Summer Student and Youth Opportunity Programs. Can you use some help with your filing backlog? Need your shop reorganized? What about that pesky testing or troubleshooting project you have been meaning to get to? Tasks, which may appear mundane and repetitive to us, can be viewed as memorable and exciting to a young student. Who wouldn't appreciate the opportunity to work alongside professionals at a world-class Laboratory? You can get caught up with your work, at a fraction of the cost of a contractor. More importantly, you can give a wonderful opportunity to a student to work at SLAC for the summer. To turn your good intentions into reality, contact Diedre Webb at x4744, [dee@slac.stanford.edu](mailto:dee@slac.stanford.edu).

Brett Groussman (SEM, pictured right) is SLAC's newly-hired Crane Inspector. He has extensive and varied experience in all aspects of hoisting and rigging operation, maintenance, and inspection. SEM would appreciate your cooperation and helpful inputs as Groussman learns the details of SLAC and begins the necessary changes to enhance the existing hoisting and rigging program.



(Photo: Courtesy of SLAC Archives)



PEP GROUND BREAKING

Photo taken during the June 2, 1977 groundbreaking ceremonies for the PEP storage ring. The four visible groundbreakers (l-r) are Lawrence Berkeley Laboratory Director Andrew M. Sessler, California Senior Senator Alan Cranston, Acting Assistant Administrator Donald A. Beattie of ERDA's Solar, Thermal and Advanced Energy Systems division, and SLAC Director W. K. H. Panofsky.

## 40th Anniversary Countdown

### This Month in SLAC History:

#### 39 years ago:

June 1963. Test Laboratory building at SLAC completed.

#### 38 years ago:

June 12, 1964. First Research Division Group Leaders meeting is held, presided over by Joseph Ballam.

#### 36 years ago:

June, 1966. The 220,000-volt transmission line to SLAC is completed, "using helicopters both for installation of the poles and for stringing of the wires."

June 22-23, 1966. Second Users meeting held.

#### 35 years ago:

June 1975. First full-scale SLAC Energy Doubler (SLED) test completed. The HomeBrew Computer Club, a group of personal computing pioneers, begins meeting at SLAC.

#### 25 years ago:

June 2, 1977. PEP Groundbreaking ceremony (shown at lower left).

#### 24 years ago:

June 12, 1978. First public description of E-122 occurs at SLAC, when Charles Prescott addresses an overflow crowd in the Auditorium.

#### 16 years ago:

June 2-6, 1986. SLAC hosts the Linear Accelerator Conference.

#### 14 years ago:

June, 1988. During initial colliding-beam run on the SLC, for the first time ever, bunches of electrons and positrons smaller than 5 microns in radius were successfully collided, and strong, clear signals for a phenomenon unique to the SLC—beamstrahlung—were observed. "Beamstrahlung" are bursts of electromagnetic radiation that are thrown forward by two compact bunches as they cross.

#### 10 years ago:

June 24-27, 1992. SLAC and FermiLab co-sponsor the Third International Symposium on the History of Particle Physics, *The Rise of the Standard Model: Particle Physics in the 1960's and 1970's* at SLAC.

#### 8 years ago:

June 23, 1994. Emperor Akihito and Empress Michiko of Japan represent their nation's commitment to international collaboration in high-energy physics when they visit SLAC and tour the Klystron Gallery and SLAC Large Detector (SLD).

#### 5 years ago:

June 5, 1997. Next Linear Collider Test Accelerator (NLCTA) completed.

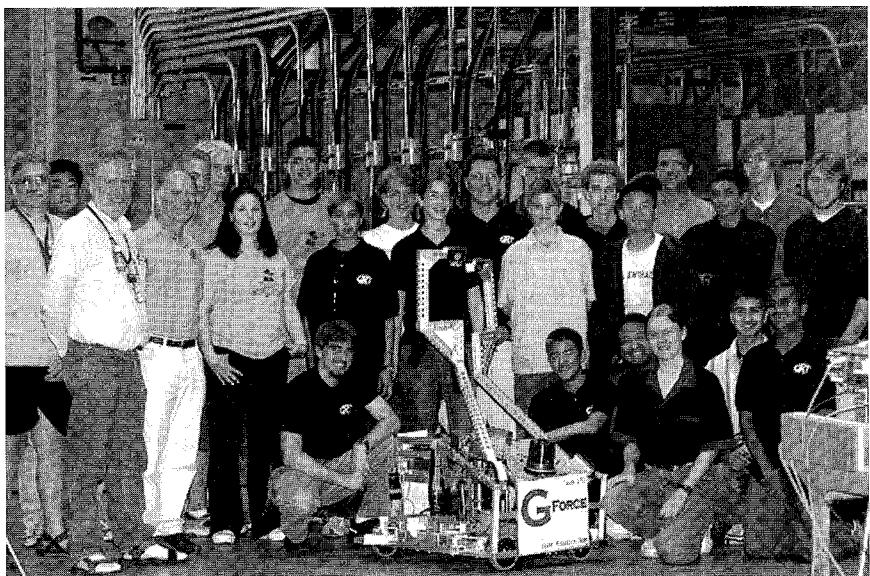
—Jean Deken

## Local High School Robotics Teams Tour SLAC

ON MAY 2, 18 MEMBERS of the robotics teams from Woodside and Gunn High Schools in Palo Alto got an insider's tour of the shops and processes within the SLAC Light Fabrication building. This was arranged through several SLAC staffers and master machinists who had, as volunteer mentors and contributing master craftsmen, become 'adjunct' members of the teams.

Keith Jobe (NLCTA) said, "What I find phenomenal about the way these kids have affected SLAC is the level of participation and volunteer work these kids get from the machinists, who will stay after hours, on their own nickel, to machine parts [for the robots], or give tours and prepare and demonstrate their skills and equipment with pride."

Within Light Fab, the team members, most sporting orange or red hair as a sign of team solidarity, were given a close-up tour and demonstration of the shops' facilities and capabilities. They spoke with the operators and saw the equipment demonstrated in the plating shop, metrology shop, and the weld shop. They



Robotics Team participants shown here with SLAC staffers.

also toured the Next Linear Collider Test Accelerator (NLCTA) at End Station B.

"For many years," said Marc Ross (NLC), "I have tried to find effective ways to improve the community outreach of SLAC. The robotics program is unusually effective because of the level of excitement and interest on the part of the students."

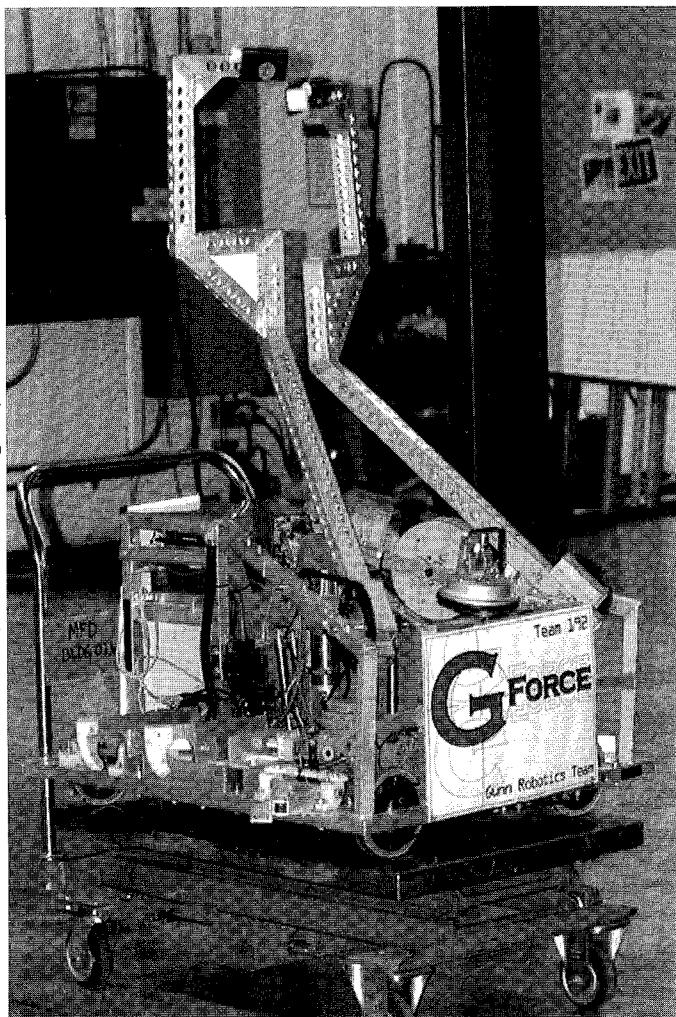
Helene Martin, 15, said, "We get to work with a lot of very motivated engineers who don't necessarily tell us what to do, but who prompt us. So, we get to learn a lot by ourselves and that's invaluable. It's really fascinating." Echoing that observation, team member Ben Sanders, 17, said, "...we get to do it ourselves. We get to figure things out ourselves, the mentors don't give us the answers, they don't tell you what the answer [to a problem with the robots] is. We're learning, rather than just being told."

The teams belong to the FIRST program of competitive robotics which designs accessible, innovative programs to build self-confidence, knowledge and life skills while motivating young people to pursue opportunities in science, technology and engineering. More than 600 teams participate nationwide and internationally in 17 Regional events and a Championship event.

Said Bill Dunbar, Gunn physics teacher and the robotics team mentor/coach, "I'm very proud of the students I work with. It's an honor to work with them and it's a tremendous honor for me to be associated with organizations like SLAC, which makes this project real by connecting it to the real world. I know the students will remember and appreciate their affiliation with SLAC."

-Tom Mead

(Photos: D. Rogers)



**SLAC EMERGENCY HOTLINE**

**1-877-447-7522**

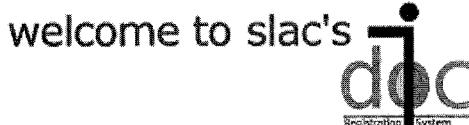
# TECH PUBS Review

what's new in Technical Publications

Billie Khan

A SLAC AUTHOR IS anyone using SLAC resources in the development of a scientific or technical paper. If you're a SLAC author, your first step in publishing a document is to get a SLAC document number.

Starting now, it is easier than ever to get a number. Using the Web you can register your document—your SLAC pub, working paper, technical note, or report—online and immediately receive a number.



Sign on to the new Internet Document Registration System (idoc) at <http://idoc.slac.stanford.edu/>, provide contact information, and identify your document. idoc will immediately provide the number. This replaces the old check-in system and is easier to use. It's fully Web-enabled and, with idoc, you'll have less information to enter.

Once you have a SLAC document number, add it to your document's title page and submit the document to Tech Pubs, and we do the rest. We forward the paper to Technology Transfer for patent review and to the Library, both to make a printed copy and a SPIRES record available, which ensures accurate citation counts. We also make your document available online from the SLAC document server.

In addition to these benefits to you, registering your documents benefits SLAC. We use the information to report SLAC document counts to DOE-OSTI, as mandated by contract, on an annual basis.

To take a look at idoc—and to learn more about the benefits of registering your documents with Tech Pubs—stop by the Breezeway on Friday, June 7 from 11:30 a.m. until 2:00 p.m. for a demo.

## Correction

Last month's article on the Employee Referral Program stated that the bonus for a successful referral to SLAC is \$250. The correct amount of the bonus is \$200. We apologize for the mistake.

—Carmella Huser

## Help Student Workers Have a Safe Summer at SLAC

IN THE LAST COUPLE of years five students working at SLAC sustained minor injuries, and one student had a first aid laceration while working with a circular saw. For many students, their summer job may be a first-time work experience in a laboratory or technical environment. To help our summer students have a safe time while working at SLAC, here are some suggested actions for SLAC supervisors:

- Make sure that students in your group are adequately supervised.
- Assign each student to a Point-of-Contact (POC) person. The POC should be someone who will mentor and assist them in working safely. Each student should have someone to whom they are accountable and to whom they may go with questions or concerns. The POC should meet and talk with each student each day.
- The supervisor or POC should have a one-on-one talk with each student upon his or her arrival at SLAC. Explain how to perform their job(s) safely and where to find Environment, Safety and Health (ES&H) information. Assess the level of maturity of each student.
- Start each student with basic tasks that have a negligible hazard. Lead them gradually into more complex tasks. Match the work you give them to their level of ability and maturity.
- Do not assume that if a student states that he/she has previously performed a task outside of SLAC that he/she is actually knowledgeable of the inherent hazards and how to perform a job safely. Discuss how the tool being used operates and how to work with it safely.
- If a student is not sure how to perform a job safely, then it doesn't hurt to ask your supervisor, POC, or ES&H staff.

—Larissa Williams



(Photo: D. Rogers)

Ed Miller (ESD) took the prize of a Specialized Helmet for commuting the most miles (200.7) by bicycle during Bike to Work Week (5/13-17). Good work, Ed!

# Golden Acorn Award Deja Vu

RYAN WACKERMAN, SON OF Yo Wackerman (SCS), was among six individuals/companies honored at the Menlo Park Golden Acorn awards banquet on May 10. These awards are presented annually to outstanding people or organizations within Menlo Park. You may recall that two years ago SLAC was honored for its longtime commitment to community service at this same awards ceremony.

This year, Ryan was honored for having won the Menlo Park Chamber of Commerce's Jerry Jacobs Scholarship. The scholarship is named for a leading Chamber of Commerce volunteer who died in 1991. Each year, this scholarship is awarded to a local student who has demonstrated strong academic abilities and a diversity of interests. Ryan is a senior at Menlo-Atherton High School and has a 4.5 grade point average. His outside interests include acting and producing films. He has created a number of films, several of which have been showcased in the La Mancha Film Festival, a local festival featuring Bay Area student films. He has also produced film videos for a dot.com company as a "virtual tour" of some local colleges.

This fall, Ryan will be attending Georgetown University in Washington D.C., studying biology and pre-med, while continuing to make movies on the side. He admits that it's "kinda weird to have two interests that are so different" but hopes to combine a career in biology and film. Somehow, knowing Ryan, it seems if anyone can figure out how to do it, he can.

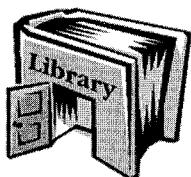
-Yo Wackerman

## Behavior Based Teams go to Texas



(Photo courtesy of D. Toews)

Shown at right (l-r) Lovetta Dunn, Lorenzo Lowery, James Dayton and David Toews, steering committee members for the START team (SEM and OHP), attended the 15th annual



From the SLAC Library

Besley Wolff

THE LIBRARY HAS NOT one, but two bits of good news this month. I know you are thinking, libraries are quiet, stodgy institutions. Not much happening there. But the SLAC library is not your typical library. Sure, we might look pretty stodgy on the outside with our austere stacks of bound journals, and our rows of books on accelerators, engineering and field theory. But the library inner sanctum has always been a place for innovation in the delivery of information, beginning with SPIRES, which is a large database of physics papers, experiments, conferences, institutions, and people-in-HEP. We have wanted a better way to show off what your library can do for you for a long time. We now have a completely rebuilt library website that we hope will allow you more convenient access to our services and databases.

Kim Sutton, our new Reference Librarian, in collaboration with a very enthusiastic (and demanding) library staff, has put together a top-notch library website within a few weeks' time. All the pages have been redesigned and rewritten by the staff to make access to SPIRES and other library databases easier for our users. Everyone had a hand in the design. You can now email your reference questions, request a book or journal purchase, add yourself to a journal routing list, and ask to check out a book or have one recalled, with a couple of clicks. You can access the Stanford Library Catalogue (Socrates) and ask us by email to fetch a book, or copy an article from any one of the Stanford Libraries:

We have links on our Library home page to the Particle Data Group, INSPEC, government documents, and the LANL Archive, among others. Our journal collection page has been reworked to allow you to quickly find the journal you want. You can also link directly to Stanford's journals online. Give our new website a test drive, and let us know how you like it.

OK, that's the first bit of good news. The second bit is that the Library now offers wireless Internet connection to the SLAC visitor's network. Conference attendees and guest scientists can now sit down in the library (anywhere) and work from their laptops, provided they have a wireless card installed in their computer. The system was installed in early May. More details should be available by the time you read this.

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*Behavioral Science Technology (BST) convention in Texas, with the other SLAC behavior-based team, PAWS (from MFD). They attended a poster session involving 1500 other groups who gave feedback on their processes, and took classes to improve SLAC's process and keep it fresh. The trip provided a valuable opportunity to learn how similar groups function and share experiences. The steering committee members thank Ewan Paterson, Management Sponsor, and everyone else for their support.*

# Take Our Daughters To Work Day a Success

THE HIGH-TECH ENVIRONS of SLAC were host to 77 high-energy entities in the form of girls, ages 9-16, who came here for the annual Take Our Daughters To Work Day in April. The schedule of events was designed give the girls a chance to learn about SLAC and career possibilities in a technical environment.

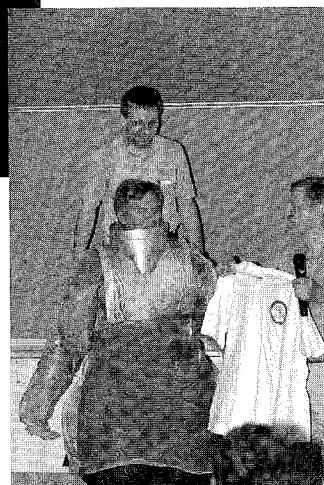
Participants elected to attend one of two workshops. Workshop 1 included Cryogenics, Electronics, Metrology and Vacuums. Workshop 2 introduced them to concepts in Mechanics, Optics, Radiation and Magnetism.



*TODTWD demonstrations gave the girls hands-on experience.*



(Photos: D. Rogers)



Teresa Troxel (SSRL) was the TODTWD program coordinator and observed that, "What really works is hands-on experience: giving them something to do. The workshops are the heart and soul of this day." She knew that if she could capture their imaginations for an instant, that might lay the groundwork for an interest they would pursue in the future.

12-year-old Holly, escort for her mother, Eileen Brennan (HR International Services), would agree. Holly was excited about the continuity tester she had built that morning and enthusiastically proceeded to demonstrate its capabilities. "We put in all the wires and then screwed it together and put in the batteries." When asked about what she had seen that morning, she said, complete with body language, "They put a carnation in liquid nitrogen and then slammed it on the table and it shattered like it was glass. Then they did that with a banana and hammered a nail into a board with the frozen banana!" Holly's conclusion? "It was a lot of fun and I think other girls would learn a lot here."

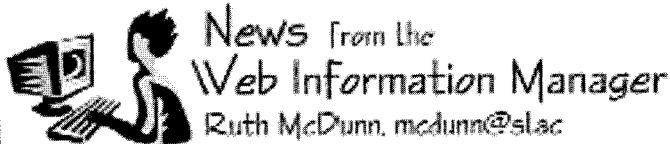
As gratefully and pointedly noted by Troxel, all this is made possible only through the tremendous support TODTWD gets from all levels of SLAC: the Directorate that officially approves the day, administrative staff who work tirelessly to remove barriers, engineering and technical managers who allow their shops to be turned upside down for 4 hours, technical staff members who work with each girl for an intense hour trying to explain technical concepts, and the many volunteer escorts who take the girls from location to location in a two hour block. Clearly, the girls visiting SLAC aren't the only high-energy entities here.

Said Troxel, "We started having a boys program last August. We had 96 boys and eight workshops so we had to start turning kids away. Next year (2003) we may try doubling the size of the program. I think we can do that and bring the boys and girls at the same time in the summer."

*-Tom Mead*

## Work Safe, Work Smart

No new injuries involving days away from work have been reported since 2/21/02. The number of calendar days between then and this update of 5/9/02 is 98 days. SLAC's record number of days between claims involving days away from work remains at 184 days.



## News from the Web Information Manager

Ruth McDunn, [mcduinn@slac](mailto:mcduinn@slac)

## Web Server Upgrades

THE GOOD NEWS: PLANS are underway to upgrade our Windows web servers to new hardware and software (see Upgrades article, page 4). The bad news: web authors will need to do some rearranging before the upgrade can happen. Let me explain.

Our current production Windows web servers (summarized at [www-group.slac.stanford.edu/wim/Default.htm#servers](http://www-group.slac.stanford.edu/wim/Default.htm#servers)) are operating on very old (in computer years) and slow NT machines with many of the webs on a single computer. The result is that a problem with one computer or script on one web affects several web servers at once. The plan is to move the main webs to new, individual Win2K servers when possible. The current servers are also running very old FrontPage server extensions (version 98). The latest server extensions (version 2002) provide full database integration, check-in/out capabilities, and the ability to create sub-webs with different authoring privileges—very desirable features for web developers. The problem comes from how we offer restricted web space on these servers.

Presently, non-public web space on the Windows servers is restricted by using NT username/password authentication and SSL encryption. These traits are applied to individual subdirectories inside public web space. Besides the maintenance nightmare this creates, there are also technical and security issues that make this method unacceptable for the new servers. As a result, before the upgrade, all slaconly/grouponly web pages on the Windows servers must be moved to our new intranet server ([www-internal.slac.stanford.edu](http://www-internal.slac.stanford.edu)). Since the pages are moving to an entirely new web address, there will be many links to find and fix throughout our web. Those who have responsibility for webs on our NT servers will be contacted to work out upgrade details. Upgrade information and progress notes are posted at <https://www-internal.slac.stanford.edu/serverupgrade/>.

## To Miss or not Near Miss?



"Wow, that was close!" Do you find yourself occasionally saying that? Operating Safety Committee (OSC) has begun a pilot program of eliciting input from its members each month on "near misses" in order to provide the opportunity to learn from each other's mistakes.

OSC member John Turek, safety engineer for the ES&H Safety, Health, and Assurance (SHA) Department defines "near miss" as an unplanned incident that does not cause personal injury, property damage, or release to the environment—but under other circumstances could have easily done so. The reports presented at OSC are anonymous, unless permission has been given to identify the group in which the near miss occurred.

Communication is a key to heightened safety. After you've notified your supervisor and safety coordinator of any event which compromises the health and safety of a person or the environment, you now have a channel through which you can help others prevent similar occurrences. A form on OSC's web page (<http://www.slac.stanford.edu/esh/slaconly/oscmis.html>) can be filled out and sent via your OSC representative (see <http://www.slac.stanford.edu/esh/slaconly/oscmis.html> for names).

Think about how you might have prevented the following situations: An employee working on an eight-foot

## Milestones

### Service Awards

**Kirkland**, Edward, Budget Office, 5 years, 6/1/02

**Becla**, Jacek, SCS, 5 years, 6/9/02

**Safranek**, James, ASD, 5 years, 6/18/02

**Burton**, Carolyn, ESD, 35 years, 6/19/02

**Sanchez**, Domingo, EFD Cryogenics, 35 years, 6/19/02

**Smith**, Michael, SEM, 25 years, 6/20/02

**Strozinsky**, Richard, Klystron, 15 years, 6/22/02

Email milestones to [tip@slac.stanford.edu](mailto:tip@slac.stanford.edu).

For expanded information, see <http://www.slac.stanford.edu/pubs/tip/milestoneindex.html>.

ladder leaned beyond her center of gravity and fell off; she landed on her feet and didn't sustain injuries. A forklift was left running and in gear as the operator stepped off; the lift coasted two feet and stopped at the wall. A glass-faced clock fell off an office wall and into the middle of a working group; the glass broke into several jagged pieces in an area where someone had just been sitting.

If you've come up with some "lessons learned," you are now speaking the language of safety professionals. Let's all try to be bilingual when it comes to safety.

—Janice Dabney, Chair  
Operating Safety Committee