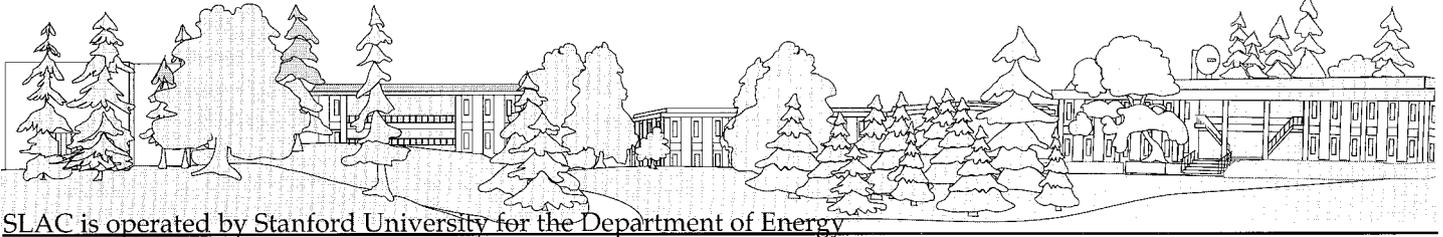


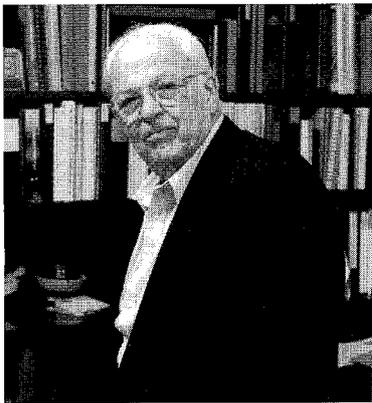
The Interaction Point

Events and Happenings
in the SLAC Community
Jan/Feb 1999, Vol. 10, No. 1/2



SLAC is operated by Stanford University for the Department of Energy

Burton Richter to Step Down and Jonathan Dorfan to Step In



SLAC DIRECTOR BURTON RICHTER announced that he will step down as of August 31, 1999 after 15 years in that position. Commenting on Richter's work as Director, Deputy Director Sidney Drell said, "Under Burt's direction, SLAC has excelled at research fields it has helped advance, especially the linear collider Burt pioneered. I look forward to his continued contribution in advancing particle physics in his role as incoming president of the International Union of Pure and Applied Physics."

Jonathan Dorfan was named director-designate and he takes over as Director on September 1, 1999. Stanford Dean of Research Charles Kruger headed the search committee for the position. "The committee quickly found that the SLAC faculty was virtually unanimous in endorsing Dorfan as the ideal person for the job," Kruger said.



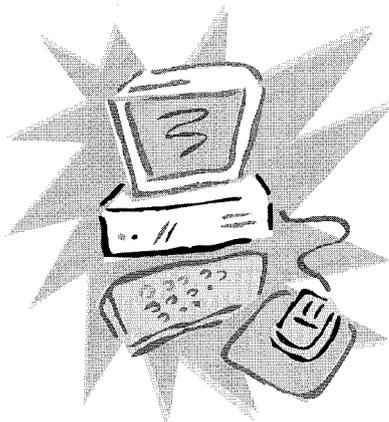
DOE/Stanford Contract Renewed



Pictured above are the people who worked for many months on the 400 or so pages of contract details: (L-R) Jerry Jobe, Burton Richter, Geoff Grant, Rachel Claus, Jim Turner, Deborah Zumwalt, John Muhlstein, Jim Hirahara, Drayton Schwartz, and Marty Domagala.

Stanford University and the Department of Energy signed a five-year contract on December 18, 1998. In announcing the new contract, Stanford University President Gerhard Caspar said, "The research done here at SLAC has played, and will continue to play, a major role in our nation's leadership in science and our world's understanding of the universe."

Electricity and Your Computer



WHEN THE POWER GOES off and the lights go out, we humans take advantage of the outage to chat with our workmates. But what about all the equipment that surrounds us, especially our computers? What happens to them in a power outage?

If the computer on your desk loses power, you may lose opened work that wasn't saved, but everything else will generally come back when it is rebooted. Nowadays, though, most computers are connected to networks of other computers. This is called distributed computing, what some people call "a system that makes your computer dependent on another computer you never even heard of."

What does a power outage do to SLAC's distributed computing network? It depends on a number of factors such as how long the power is off and if there was time to shut down equipment before the outage. If the power fails entirely, two large battery-powered "Uninterruptable Power Supply" (UPS) will keep power supplied to the major critical computer and network components in the computer center. These UPS units also filter out under- and over-voltage conditions on the power line that can damage equipment when power is restored. Each is about six feet high and nine feet long and contains enough batteries to keep the major computers and network switches in the computer building alive for about an hour.

If the power stays off for more than an hour, as it did on December 2 when a rat crawled into the SLAC power lines, the UPS systems will run out of power and shut down. Then we have a lengthy process of bringing the systems back up.

If all systems go down, we have to begin by bringing the network routers and switches back up,

and make sure that they have negotiated properly with each other and the outside world to reach all the various parts of the SLAC network. Once the network is stable, we bring the servers back in a certain order. The whole process can take nearly eight hours to complete, although users can resume most work as early as two hours into the process.

When power is lost and restored, there are often 'spikes' of voltage on the line that are enough to damage electronic equipment. In the week after a site-wide power outage, we typically see five to seven failures, usually disk drives, but sometimes memory or mother boards fail, which require replacement. Equipment may be damaged even though it has been connected to so-called 'surge protector' power strips, so the efficacy of that bit of insurance is dubious.

Finally, if there is a power outage, and you turn your desktop machine back on before the network and central servers are restored, some services for startup may not be available. If your machine isn't working correctly after such a power outage, wait until you hear that things are back to normal in the Computer Center and then try rebooting your desktop machine.

To protect your computing equipment, turn your computer off while the power is off and wait until the power has been back on for a while before turning it back on. A small UPS system might also help protect your desktop system from damage, but is probably not worth the expense. The cost of components damaged by the average power outage is far less than the cost of equipping all offices with UPS systems.

In the Computer Center, we are working on providing a diesel generator to back up the UPS systems. This would keep the systems up almost indefinitely in the case of a power failure, and would also put virtually all computer systems in the building on the UPS system. The project is still in the discussion phase. In the meantime, if we have a dry winter, and if the new master substation does its job, we may have fewer outages in the future, but at least you will know what to do if the lights go out.

-Chuck Boeheim

Straightening the Pictures

FOR THE RECORD, LAST month we showed a photo credit in the BaBar Dedication Ceremony story as John Beech, not John Beach. Sorry for our blooper.

And speaking of bloopers....The photo for family day shows Jonathan Dunn and his children Ceara and Conor, NOT Chuck Boeheim.

Reduce, Reuse, Recycle

BE SURE TO USE the green recycling containers to recycle white paper, mixed paper, and newspapers. This saves our natural resources.

Dosimetry Services Back at Full Strength

THE DOSIMETRY GROUP IN Operational Health Physics (OHP) Department is again operating at full strength after setbacks delayed dose reporting for almost a year. We are pleased to report that individual dose reporting service is once again on schedule.

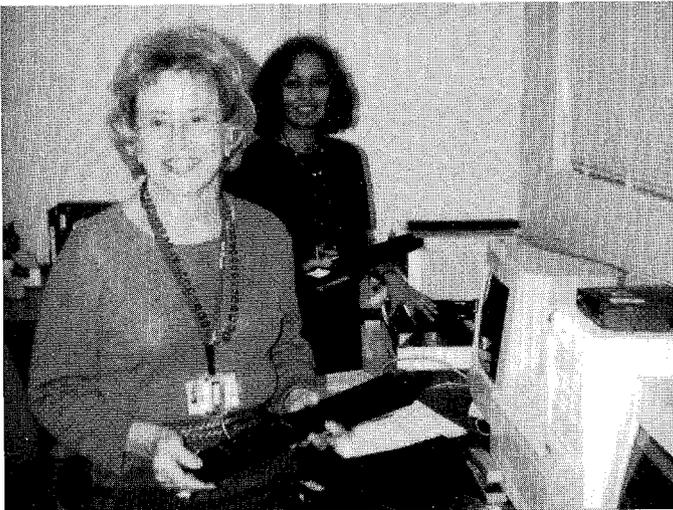
The biggest setback involved a desktop computer crash in the dosimetry laboratory last April. The hard disk files containing the results of 1300 dose records were lost, but fortunately, a complete paper copy of the files existed. Paper files are both good news and bad news. As a matter of routine and data security, the dosimeter processing computer system is designed to print out a paper copy of all dose records saved to the hard disk, providing a backup in case of failure. Data recovery from paper records is usually a tedious, time-consuming process, and this time was no exception, but the job is finally done.

We also took care of the backlog of dosimeters awaiting processing while the data recovery was underway. As a result of this computer crash, dosimetric data are now being backed up on the SLAC network on a daily basis to provide rapid data retrieval.

A second setback occurred when Bob Flood, the group leader, was injured in an accident last July. He was out of commission for several months and we sorely missed him. Happily, he has now returned to work full-time, and the Group is once again completely staffed.

These setbacks account for the delay in issuing dose reports for individuals who returned their dosimeters through September 1998. The exception is the group of individuals who reported lost or damaged dosimeters before that time. If you have any questions about dosimetry, please contact Steve Frey, OHP Department Head, at x3839.

—Roxanne Jones



Kathleen Thornton (foreground) and Santa Chatterji of OHP's Dosimetry Group feed TLD information into the Panasonic Reader.

FactinOs

Volunteers Needed

April 22 is Take Our Daughters to Work Day and volunteers are needed for the planning committee or to assist in day-of-the-event activities. Bernie Lighthouse in Personnel (x2358) especially needs assistance from technical people. Please give him a call about hands-on activities, open house ideas or feedback on what worked or didn't work from previous years.

Visitors Can Mean \$\$\$ for Locals

Why not plan your vacation around BaBar meetings and rent your house to visitors? Upcoming BaBar meetings are February 22-25, June 21-25, and October 18-21. Contact Ute Hayes in SLAC housing, ext 4132, to list your house. The need for housing is constant, especially short-term housing within a bike ride (about 5 miles) of SLAC.

Vending Made Easy

A new item on the web is the SLAC FleaMarket. These pages can be viewed from computers within the SLAC domain at <http://www.slac.stanford.edu/slac/fleamarket/slaonly/>. Now is your chance to buy and sell cars, furniture, and collectibles. Looking for a camper shell or a bookcase? Place an ad to find it. Do you need a fourth at Bridge or a volunteer for an upcoming event? Use the FleaMarket to advertise it.

Very Generous Giving

The Food and Toy Drive Committee (Pat Bradley, Mary Parish, and Pat Prickett) announced that a total of 1,277 pounds of food were collected this past holiday season, which was more than in 1997. In addition, four large boxes of toys were delivered to the Red Cross, which was also an increase over the past year. The Second Harvest Food Bank and the Red Cross both wish to thank SLAC employees and users for their generosity.

Visit the Blood Mobile

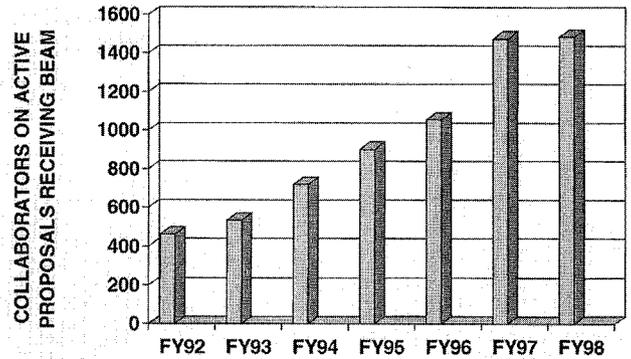
The first date for the 1999 Mobile Blood Drive will be Wednesday, March 3. The web address URL: <http://www.slac.stanford.edu/grp/pao/blood.html> contains information on this very important program.

SSRL Users

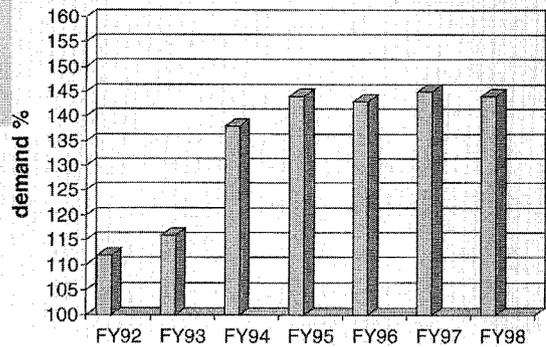
RESEARCH AT SLAC IS based on the peer review system, in which panels of experts review proposals to determine the merit of an experiment. At SSRL, the Proposal Review Panel (PRP) is the main external review group rating proposals for beam time. In addition to proposal review, the PRP also provides advice to the SSRL Director on the status of scientific programs, advises on future opportunities and participates in the strategic planning process of the laboratory.

The PRP consists of ten external scientists (without affiliation to SSRL or Stanford) with expertise in various research fields using synchrotron radiation. These experts form subpanels in Structural Molecular Biology and Biophysics, Solid State Physics and Materials Science, and Solid State and Materials Chemistry/Environmental Science.

The group meets twice each year (or three times in the case of the biology subpanel) to consider all new proposals or extensions. Many proposals are also sent to outside scientists for written reviews to assist the PRP panel members. This process is anonymous and reviewers do not know the names of the Principal Investigators. Proposals are rated from 1.0 (high) to 5.0 (low.) The proposal rating is what determines the beamtime allocation process for general users.

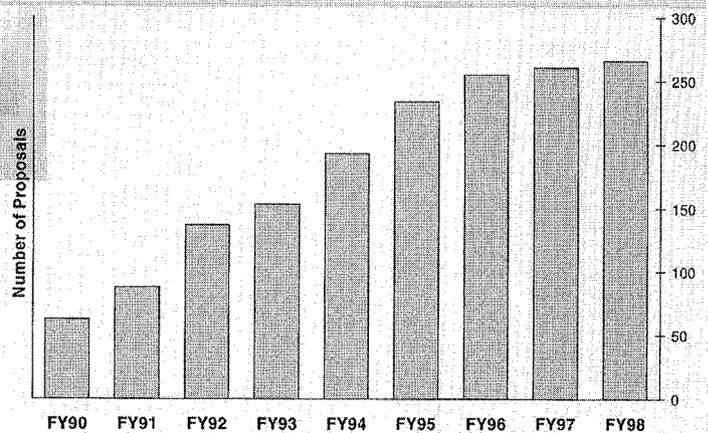


SSRL User Demand



Note: FY98 demand for insertion device lines only = 182%

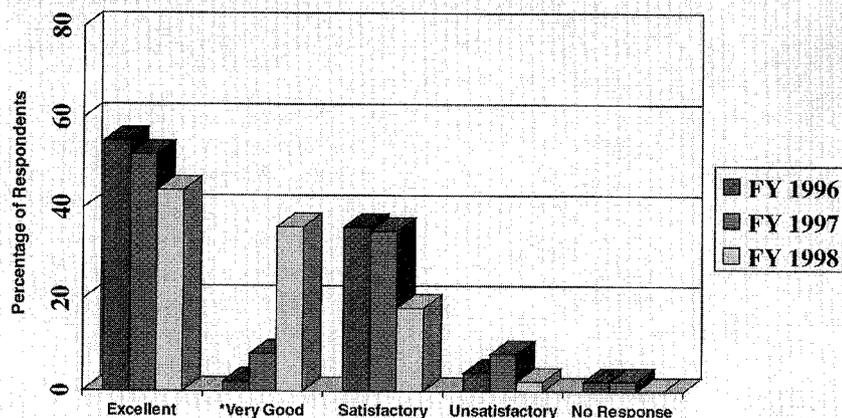
SSRL PROPOSAL SUBMISSIONS FY90 TO FY98



*includes new proposals and renewals

Earns Beam Time at SSRL

End of Run Summary: Beam Quality



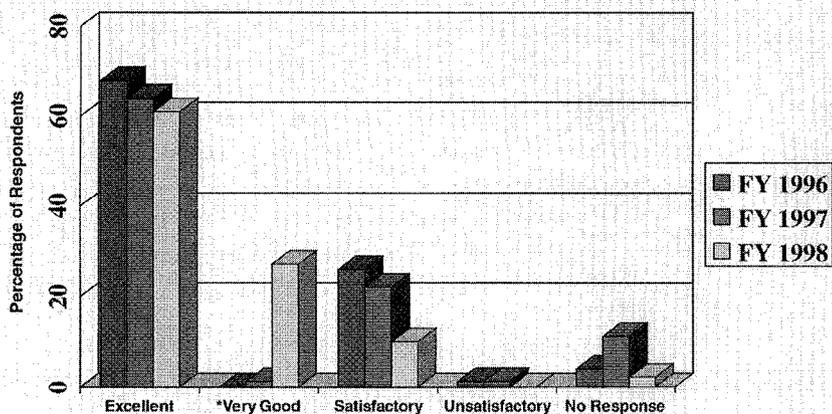
* Response category not available throughout FY97

There are five different classes of proposals and they are accepted twice a year, except for non-program protein crystallography proposals which are accepted 3 times per year because of the high demand and strong desire for faster turnaround. Proposals are assigned to one of the three subpanels of the PRP based on their area. The breadth of a proposal sometimes requires more than one subpanel.

Several factors beyond the rating may influence the final determination about which proposals will actually receive beamtime, for example the scarcity of beam time and the large number of proposals of equally high scientific merit. Consideration may be given to graduate students completing their thesis work. The guiding philosophy in shift assignment is to give enough beamtime to maximize the chance of significant results.

At the end of an experimental run, the user group is asked to complete an evaluation to rate the overall quality of experience at SSRL, the quality of the beam, and other aspects of the process such as scheduling and safety review. Results have been consistently and overwhelmingly positive over the past few years, a demonstration of the fact that the user community views SSRL as a facility of quality and service.

End of Run Summary: Overall Experience



* Response category not available throughout FY97

Meet Dr. Erbacher



ROBIN ERBACHER SUCCESSFULLY DEFENDED her Stanford University Ph.D. dissertation on Friday, December 11th. The title of her thesis was: "A Precision Measurement of the Spin Structure of the Proton at SLAC," which was based on E143, one of a series of five experiments performed in End Station A from 1992-1998 to study the helicity content of the nucleons.

With friends, family, and colleagues in the audience, Robin gave her thesis committee an hour-long talk summarizing the experiment and its results. She then faced the thesis committee alone to be asked questions about her thesis, her experiment, and any other topics in physics that they wanted to ask. Following the committee's deliberation, Robin passed her thesis defense and earned her Ph.D. in physics from Stanford. That same evening, she and her family also hosted a celebratory party, complete with door prizes and lots of food. Dieter Walz provided some of his own vintage for the festivities, which topped off the day for Robin. Working off her thesis topic, Ed Garwin congratulated Robin on becoming a "spin" doctor.

Robin has been at SLAC for the past 7 years, working in Group A under Professor Charles Prescott on the End Station experiments. She also has been a tour guide at SLAC and very active in the Stanford community. She is now employed by SLAC to work on E155x, which will run in End Station A from February 15th through April of this year, while she searches for a postdoctoral position in particle physics.

Work Safe, Work Smart

The last injury involving days away from work was reported on 10/27/98, according to Sharon Haynes, Worker's Compensation Coordinator. As of 1/11/99, there were 76 calendar days since that incident. SLAC's record number of days between claims involving days away from work remains at 150 days.

Black History Month Focus on Art

THE BLACK ASSOCIATION OF SLAC Employees (BASE) is pleased to announce that William Anderson, an artist with skills in many different media, will exhibit a collection of photographs entitled "Let's Not Forget" to kick off events for Black History Month at SLAC.

Anderson's work will be on view on Thursday, February 11 from 10 am to 2 PM in the Auditorium breezeway. He will also give a talk and slide presentation in the Auditorium at noon the same day and all are invited to attend. Anderson is currently professor and chairman of the Art Department at Morehouse College in Atlanta.

Anderson studied under the direction and guidance of noted wire sculptor and famed academician Hayward L. Oubre, who still remains his mentor and advisor. Anderson also studied with world famous photographer Korundos, from whom he learned basic and advanced photography. Anderson's work has been shown in many major exhibitions and in one-man shows. His most recent was at the Wadsworth Atheneum Amistad Gallery in Hartford, Connecticut.

Comedian Bill Cosby recently acquired one of Anderson's works for his permanent collection. Cosby also showed a collection of Anderson's work on his television show last year.

Anderson's works are in the permanent collection of institutions including the Everson Museum of Modern Art in Syracuse, NY; the Dusable Museum in Chicago; and the Department of Archives and History of the state of Georgia. Anderson received his BA from Alabama State University, his BFA from the University of Wisconsin, and his MFA from Instituto Allende in San Miguel, Mexico.

Training Opportunities

KEEP YOUR SKILLS up-to-date by taking advantage of Professional Development training available to all SLAC employees. SLAC publishes a booklet, "Training Opportunities at SLAC" three times a year, and the current issue covers the period from January through April. You may want to look into the Staff Tuition Assistance Program (STAP) which provides reimbursement/STAP assistance to departments for the costs of courses, seminars, and workshops that are applicable to an employee's current position at SLAC or to an identifiable career objective. Professional training this past year included such topics as "Humor in the Workplace" and "Building Better Relationships" which were open to all interested employees and were at no cost to the employee or the department.

In addition to Professional Development, other areas such as New Options in Wellness, Computer Education, and ES&H training are covered on the Web page <http://www.slac.stanford.edu/pubs/slaconly/trngopps/trngopps.html>.

Safety Discussions are Coming!



THE NEW AND IMPROVED annual Safety & Environmental (S&E) Discussions will be held on Friday, March 12, 1999 from 8:00 am to 10:00 am at locations designated by each SLAC Division. A “kick-off” meeting for discussion group leaders (assigned by divisions) will be held on Monday, March 8, 1999 from 1:30 to 2:30 PM in the SLAC auditorium. We’ve listened to past participants’ comments and reviewed evolving laboratory priorities—the result this year is an even more “user-friendly” process!

Recent San Mateo County inspections have raised environmental concerns to a higher visibility at SLAC, so we’ve developed question lists which will help participants discover new ways to sharpen our performance in this important area. SLAC office workers said that at times the discussion process didn’t seem relevant to their daily routines, so we’ve developed a special info packet for them. And though we exceeded Dr. Richter’s laboratory goal of a 21% reduction in the injury and illness rates with a 25% reduction (by current figures), we are still providing tools for discussing this topic, since the S&E discussions are a crucial element in this improvement process.

How did we do in 1998?

The top hazards identified in 1998’s discussions were slips, trips, and falls; electrical safety; and repetitive strain/computer work. As of December 1998, 82% (135 of 164) of the 1998 tasks in response to concerns have been completed, thanks to a lot of hard work by many people! Here’s just a sampling of these accomplishments:

- Ergonomic evaluations were scheduled in many groups, and proper equipment was purchased.

- ES&H bulletins outlining work practices in or near standing water were re-issued to group members who expressed concern for this safety hazard.
- A walkway on the west side of MCC was partially re-paved and three drains were installed to carry off the excess water, thereby alleviating a slip and trip hazard for many people.
- Two carts and a ladder were purchased by a department whose members had previously stood on chairs and tables to reach cables, and moved heavy instruments and supplies without a handcart. The group reported that before the safety discussion, they had “thought of the problem as an inconvenience, not as a safety hazard.”
- A Facilities Safety Work Ticket proposal has been developed and will be implemented in the near future. The process is intended to get rid of any “black holes” with regard to facility-related safety requests!

Where can I get more information?

You can obtain information about all past S&E discussions on the Web via the ES&H home page under “Programs.” The URL is <http://www.slac.stanford.edu/esh/standdown/standdown.html>. Click on “S&E Discussion Searchable Database” and then on “Issues” and enter the last name of the discussion leader for your group; use the pull-down menu choice “1998 S&E Discussion” for the Audit ID. A final click on the “Search” button will take you to your goal! Contact Ellen Moore at x4298 or emoore@slac for help. And of course, your Division SEDAC rep is also pleased to assist with information on this year’s or past discussion issues:

BSD	Gail Gudahl
Director’s Office/ES&H	Ellen Moore
Research	Frank O’Neill
SSRL	Ian Evans
Technical	Janice Dabney

–Prepared by the Safety & Environmental Discussion Assistance Committee (SEDAC)

On the detailed home page (www.slac.stanford.edu/detailed.html), look for the link just under the SLAC graphic called "Show alphabetical list of links on this page." When this link is selected, a script, written by Les Cottrell (SCS), generates a new page that shows a list of all the links—but they are now sorted alphabetically! This "show-index" page is dynamically generated each time you use it, so it can't be out of date!

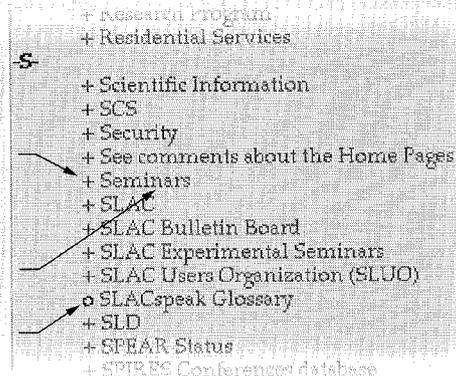
From the "show-index" list, you can select any of the linked web pages. Or, select a "+" sign to the left of a link to see the "show-index" list for the adjacent linked page. Linked pages with an adjacent "o" do not have any links on them, so a "show-index" page can't be created. Using this tool, you can leap from page to page, looking at alphabetical lists of links on each page.

This is just one more way for you to find what you need. You can look at the categories, search the page (use your browser menu—Edit, Find in/on page), search the SLAC web site, or, now, view the links on each page sorted alphabetically. Thanks to Les Cottrell for this very useful feature!

Go to a page showing an alphabetical list of all links on the "Seminars" web page

Go to the "Seminars" web page

No links associated with this page



—Ruth McDunn



HOLIDAY CHEER: The EFD Department hosted their holiday party before the annual shut-down. Pictured (l to r) are David Fryberger, Perry Anthony, Susan Walz, Steve Williams, Dieter Walz, Zen Szalata, and Steve St. Lorant.

SLAC Milestones

RETIRED

Allen, Richard, EFD/CYO, 01/04/99
DeStaebler, Herbert, PEP-II, 12/31/98
Walker, Jack Kent, EFD/CYO, 01/04/99

DECEASED

Ferrari, Paul, Retired, 12/10/98
Fuendeling, Richard, BSD, 01/16/99
Pollins, Furman, PC, 12/10/98

Do you have a milestone you would like published in TIP? Email tip@slac.stanford.edu to have it included.

Resolved: To Make SLAC Even Safer!

SINCE IT'S TIME FOR New Year's resolutions, the Operating Safety Committee has resolved to strive even harder toward a safe work environment in 1999. As the only safety committee representing the whole site (25 members representing 5 divisions & the Director's Office), we have both the opportunity and the responsibility to touch every corner of the Lab. A recent member addition for the Research Division is from the SLAC User's Organization (SLUO) and creates a new link for the committee to this important (and large) group at SLAC.

Some of the issues we are working on for this season are subcontractor safety, non-skid mats for high-traffic buildings, and the procurement process as it relates to safety and environmental management. To bring up additional issues or comment on pending ones, call one of your division's representatives; meetings are the first Wednesday of every month. View our recent minutes and a member listing by accessing the OSC link on <http://www.slac.stanford.edu/esh/committees/committee.html>.

—Janice Dabney