

INTERACTION POINT



October 18, 2002

40th Anniversary Celebration a Winner Thanks to Staff Efforts

By Tom Mead

SLAC marked its 40th anniversary last week with a celebration that brought together more than 1,300 people for a series of well-orchestrated events highlighting the Lab's past achievements and heralding exciting future possibilities.

As SLAC Director Jonathan Dorfan noted in his welcome speech, "This day is dedicated to the SLAC staff as a celebration of the accomplishments and contributions to science made by them."

The count of those contributions would now have to include the event itself. The affair, which involved months of tireless planning and preparations by over 100 people, went off smoothly and without a major hitch.

"I am so grateful to the SLAC staff for their support of this event," said 40th Committee Member Pat Kreitz (TIS). "Whenever a member of the Committee went to someone for help or put out a call for volunteers, people pitched right in. It was inspiring to witness how much everyone cared to help make this a special celebration."

SLAC staff contributed in many ways, including program planning and implementation, AV, graphics, disabled transport system, parties and catering, to mention just a few. There were over 80 SLAC staff volunteers helping on the day of the celebration.

In his closing speech, Dorfan was quick to recognize the many people that contributed to the event. "This celebration could not have happened were it not for the super-human effort of a highly motivated group of our staff who organized this extravaganza as volunteers."

For the afternoon event, SLAC staff, government representatives, guests and scientists streamed to a giant white tent erected on the Green.

There, in addition to speeches by Dorfan, the afternoon included speeches by Stanford President John Hennessy, Peter Rosen from the DOE Office of Science, University of Toronto President Robert Birgeneau, Davidson Institute of Science Education Chair Haim Harari, and former SLAC Directors Burton Richter and Pief Panofsky. In the day's most poignant moment, Panofsky received

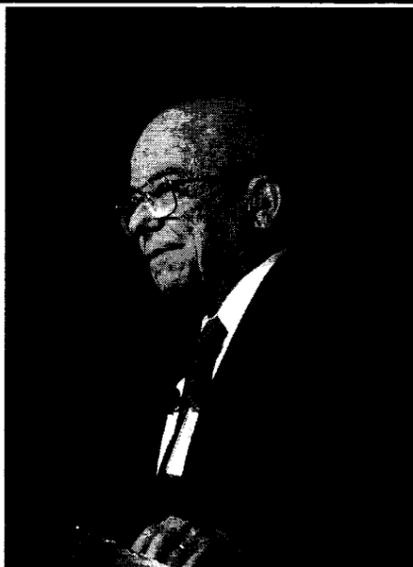


Photo by Diana Rogers

Pief Panofsky addresses the audience.

a standing ovation as he walked onstage to address the audience.

Before leading the audience to a reception on the "Green," Dorfan spoke about SLAC's bright future, touching on work done across the Lab. "The achievements of the first 40 years will be difficult to top," he said, "but the ingredients are already in place to make the next 40 years just as memorable."

Later in the evening Jack Marburger, Chief Science Advisor to President Bush and Director, Office of Science and Technology Policy, delivered the keynote address at a dinner held at Stanford's Alumni Center.

In his remarks, Marburger quoted from poet T.S. Eliot's *Four Quartets* to illustrate his vision for the future of fundamental science:

*We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.*

"The truths that poetry evokes are within ourselves," Marburger said. "Within the experiences that lie in our memories and are drawn out by their resonances with the propositions of the rhythmic lines. The truth lies in the experiences, the poetry comes later. In the final analysis the exploration of the universe is necessary to humanity because it provides the basis for its grandest art." ●



Photo by Diana Rogers

A crowd gathered in a huge tent on the Green to celebrate SLAC's 40th Anniversary.

29th Annual SSRL Users' Meeting Features Talks, Workshops

By Tom Mead

The 29th Annual Stanford Synchrotron Radiation Laboratory (SSRL) Users' Meeting took place in the Panofsky auditorium and on the Green October 7-9.

The Users' Meeting provides a dynamic forum for the presentation and discussion of research activities from SSRL and the synchrotron community. New data and developments are shared through invited talks and poster presentations highlighting research activities conducted at SSRL over the past year. In conjunction with this meeting, four longer, more intensive workshops

were held during the last two days of the meeting.

SSRL Director Keith Hodgson noted, "This was a very successful meeting with over 200 participants attending 24 talks, 46 poster presentations, 26 vendor exhibits, four workshops, two evening receptions and one Oktoberfest themed dinner during the three-day event."

A poster competition was also held in which graduate students competed for poster prizes in several scientific categories, including Materials Science, Environmental Science and Biological Sciences. Four prizes were awarded to the following graduate students:

- Trevor M. Willey, LLNL, UC Davis (Characterization of Ultrathin Organic Films Using NEXAFS)
- Colleen M. Hansel, Stanford University (Mechanisms of Fe



Photo by Tom Mead

The SSRL User's Meeting featured 26 vendor exhibits.

Biomineralization Induced by Dissimilatory Iron Reduction)

- Jeffrey Catalano, Stanford University (X-ray Spectroscopic Investigation of the Distribution and Speciation of Uranium in Contaminated Sediments From the DOE's Hanford Site)
- Weiwei Gu, University of California (XAS Study of Ni Enzyme—Story of CODH and ACS) ●

SLAC's Electron Beam Gets Astrophysical

By Miriam Boon

In 1916, Victor Hess risked his life to observe cosmic radiation by riding a balloon up to 17,500 feet without oxygen. Since then, scientists have been puzzled as to where high-energy cosmic rays come from and how they got accelerated to nearly the speed of light.

The mystery recently deepened when scientists noticed a discrepancy between the results of leading experiments that use different techniques to study ultra high-energy cosmic rays (UHECRs).

One of these experimental groups, the University of Utah's High Resolution Fly's Eye (HiRes), has been working hard to determine the source of this discrepancy. Their investigations have most recently led them to collaborate with the High Energy Laboratory Astrophysics (HELTA) program here at SLAC, a new initiative led by Pisin Chen (ARD-A) and aimed at simulating astrophysical processes in the laboratory so that they can be studied at closer quarters.

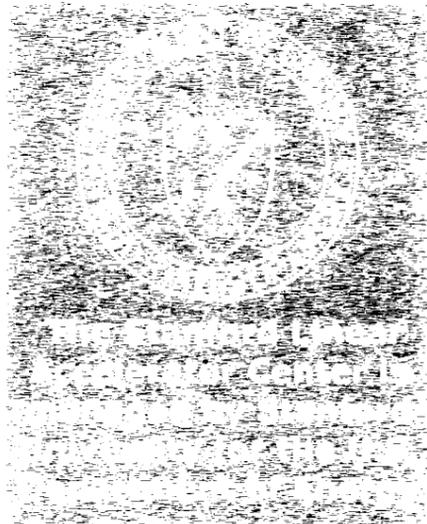
Together, the two groups hope to not only shed some light on this new inconsistency, but also to gain a deeper understanding of how high-energy cosmic ray air showers behave.

Unraveling the High-Energy Cosmic Ray Mystery

We know that cosmic rays have a wide range of energies, beginning at the low end of high-energy physics. UHECRs stand apart from other high-energy cosmic rays because they can in principle be tracked to their origin by observing their trajectories. This is possible because their momentum is so great that, even if they carry charges, they are not deflected significantly by the magnetic fields they encounter as they travel through space.

Unfortunately, they are also very rare. At an energy of one hundred-billion-billion electron volts—two billion times greater than the highest energy particle SLAC's accelerator can achieve, and the highest energy cosmic ray observed to date—only one such UHECR can hit a square kilometer on Earth per century, and

(See COSMIC RAYS, page 2)



Director's Corner

by Jonathan Dorfan

The celebration of SLAC's 40th Anniversary was a wonderful event. It gave us the opportunity to showcase SLAC's remarkable achievements but also demonstrated our ability to organize a major event efficiently and imaginatively. Everyone was impressed by SLAC's spirit and vitality. Senator Boxer's field representative said that ours was one of the best-organized events she had attended in a long time, and added, "and I do this for a living!"

I was delighted that such a large fraction of our staff attended the event. As I made clear in my speech, the success of the laboratory is principally due to the excellence of our staff. I hope you all enjoy the 40th Anniversary photo album and I encourage you to visit the 40th Anniversary web site (<http://www-conf.slac.stanford.edu/40years/>) where you can see the whole event on video and read the wonderful letters of congratulation.

Many of the leaders of the particle physics community, and of the agencies that fund it, who gathered at SLAC for the 40th Anniversary, came together again only a week later at CERN in Geneva for a weeklong workshop sponsored by the International Committee for Future Accelerators. This important meeting takes place every three years to take stock of the activities in particle physics labs worldwide and to look forward to future projects.

The dominant subject of the meeting, the construction of a new Linear Collider, is important to all of us at SLAC. I am pleased to say that the project is gathering momentum. Greg Loew presented the first findings of the Linear Collider Technical Review Committee that has studied the different technical options for the accelerator. Greg and his colleagues were congratulated by the conference delegates for their excellent job that has laid the foundation for the final decisions on the technical design of the accelerator. There was also a meeting of the International Linear Collider Steering Group that has been set up to prepare the ground for not only technical choices, but also promoting political support and eventually decisions on the site of the new accelerator.

There is global unanimity that the Linear Collider is the next priority for accelerator construction and the developments in the next few years will be very exciting. SLAC is centrally placed in this new science adventure: the first truly international science construction project. We are at the starting line now and I will keep you all fully informed on future developments.



Photo by Diana Rogers

Cosmic Rays

(continued from page 1)

there is no way of predicting where these rays will hit. High-energy cosmic rays do, however, cause something called an 'air shower.' A single high-energy cosmic ray can result in an air shower that is visible to detectors using air fluorescence technique from tens of kilometers away.

Upon entering the atmosphere, an UHECR would initially decay into hadrons, which shortly thereafter cascade into leptons, such as electrons. The air shower's effect is similar to an avalanche's progress—the more particles there are in the shower, the more interactions occur and the more showering particles result. By the time the shower reaches the ground the final particles are much lower in energy and have been spread wide.

Detecting the air showers

Our atmosphere contains mostly nitrogen molecules. The high-energy leptons in an air shower interact with the electrons that are attached to those nitrogen molecules, imparting energy to them. This causes the nitrogen electrons to temporarily orbit further from the molecule's nucleus.

As the electrons eventually return to their normal orbits, they emit photons in the ultraviolet range. This is what scientists called "air fluorescence," the same physical mechanism that makes fluorescent light bulbs work (but at different frequencies). Observing this fluorescence is useful in determining the initial energy of the UHECR, and is used by HiRes to detect high-energy cosmic rays.

Unlike HiRes, another leading experiment called the Akeno Giant Air Shower Array (AGASA) counts the number of shower particles that reach the earth. It compensates for the rarity of UHECRs by covering a large area with detectors of a different kind.

As both techniques have become more advanced, the two experiments have progressively increased their accuracies. It was only recently that the experiments' resolutions were good enough for them to see the discrepancy between their results.

Joining Forces, Taking action

This unsettling discovery spurred Chen and Pierre Sokolsky, of the University of Utah and HiRes, to join forces. Together, with a team of scientists, they are attempting to confirm or correct the existing calibrations of air fluorescence technique by using SLAC's electron beam to trigger and simulate air showers. Additionally, they hope to gain a better understanding of high-energy cosmic ray showers by cross checking the results of laboratory measurements against pre-existing computer simulations.

This improved calibration of the air fluorescence will help determine if it is inaccurate calibrations that have led to the mysterious discrepancy between HiRes and AGASA's results.

Study of the simulations used to improve the calibration will also help scientists to better understand air showers. Chen commented, "It is a happy coincidence that the total energy of a typical SLAC beam is roughly equivalent to that of the highest energy cosmic ray observed to date."

The information gained will benefit not only the existing HiRes experiment, but also the next generation Pierre Auger Observatory, currently under construction in Argentina, as well as the next-generation space based observatories such as the joint U.S.-European EUSO and the U.S.-lead OWL projects.

Said Sokolsky, "We're going to be able to make a very good measurement at SLAC. This is exciting. SLAC is just perfect for this." ●

Work Safe, Work Smart Statistics

Injuries involving days away from work were reported on 9/13/02 and 9/16/02. Because the previous injury involving days away from work occurred on 8/20/02, SLAC's record number of calendar days between claims remains at 184 days. —Sharon Haynes

This Month In SLAC History: October 2002

By Jean Deken, SLAC Archivist

38 years ago, October 2, 1964: Paleoparadoxia discovered during excavation of End Station B.

37 years ago, October 1 – 2, 1965: First "Users Conference" held at SLAC, with 150 people in attendance.

36 years ago, October 17, 1966: Interlaced beams of different energies are delivered to the beam switchyard, and experiments with the beam begin.

34 years ago, October, 1968: Feynman gives his first public talk—at Stanford—on his parton theory.

26 years ago, October 18, 1976: Burton Richter (SLAC) and Samuel Ting (MIT) awarded the Nobel Prize in Physics for discovery of the J/ψ particle.

23 years ago, October, 1979: SPEAR becomes a 50-50 shared facility between SLAC and SSRL. During the 50 percent time when SPEAR operation is dedicated to synchrotron radiation, the ring is filled only with electrons, and no colliding-beam work is done.

21 years ago, October 21, 1981: Fang-Yi, Vice-Premier of the People's

Republic of China, visits SLAC.

19 years ago, October 31, 1983: SLAC Linear Collider (SLC) groundbreaking ceremony.

14 years ago, October 25, 1988: Michael Riordan of SLAC awarded the 1988 American Institute of Physics Science Writing Award for *The Hunting of the Quark* (1987: Simon & Schuster).

12 years ago, October 4, 1990: SPEAR becomes a dedicated synchrotron radiation facility with an independent injector.

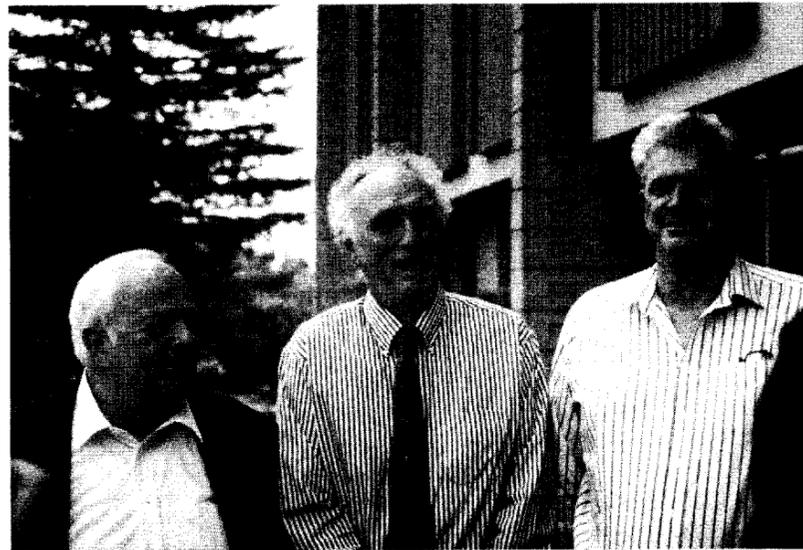
October 17, 1990: Nobel Prize shared by Richard Taylor (SLAC), Jerome E. Friedman (MIT), and Henry W. Kendall (MIT) for their work in the development of the quark model.

11 years ago, October 7, 1991: DOE "Tiger Team" arrives at SLAC for a four-week stay.

10 years ago, October, 1992: SSRL becomes a division of SLAC.

9 years ago, October 1, 1993: Last paper issue of *Preprints in Particles and Fields* produced.

October 4, 1993: President Clinton



Nobelists Burt Richter, Martin Perl, and Dick Taylor on October 11, 1995 at the SLAC celebration in honor of Martin Perl's Nobel Prize in Physics.

announces that SLAC was the preferred site for the construction of the B Factory, after a prolonged analysis comparing SLAC with a site at Cornell University.

7 years ago, October 11, 1995: Nobel Prize in Physics shared by Martin Perl (SLAC) (for the discovery of the tau lepton) and Frederick Reines (UC Irvine) (for the detection of the neutrino).

5 years ago, October 27-31, 1997: SLD records more than 10,000 Z-zero

particles, for the first time since it began operations in 1991. B-Factory Project completes installation of the electron High Energy Ring—five months early—and Positron Injection System Ready.

4 years ago, October 26, 1998: B-Factory (PEP-II) dedication.

For more information on the history of SLAC, see:

<http://www.slac.stanford.edu/history> ●

Abandoned Bicycles Find New Homes

By Miriam Boon

You may have noticed that the pink-tagged bicycles around the Lab have disappeared. They were removed for good reason: the Safeguards and Security Department (SSD) has begun an ongoing program in which abandoned bicycles will be collected to be recycled or, where possible, refurbished.

Bicycles around the Lab were tagged months ago as part of the preparations for the 40th Anniversary Celebration. Some of the bicycles had been left untouched for years. SSD began collecting the bicycles in late August. Three bikes were claimed by the Transportation Department, where Alfonso Manuel (SEM) is reconditioning them so that they can be reused around the Lab.

Two of the refurbished bicycles will be available for use by SLAC employees. To request the use of a reconditioned bicycle, anyone can fill out a service request form, and if one is available it will be issued at that time.

A Service Request form is available on the Web at: <http://www-group.slac.stanford.edu/sem/NonSafety/Default.htm>

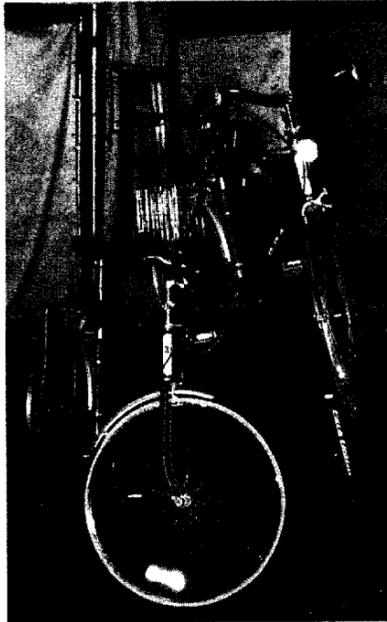


Photo by Kathy Bellevin

Used bicycles get a new lease on life.

The remaining ten bikes were passed on to Alan Conrad (PRC), who is making arrangements to sell the bikes to SLAC staff.

"How and when the bikes will be sold has not been finalized, although we're shooting for early November," said Conrad. "Any money raised from these sales would go to SERA, the SLAC Emergency Relief Association."

Sewer Safety Benefits You and the Environment

By Michael Hug

One of the incidents mentioned in the recent Safety Stand Down was a blocked sewer line that resulted in the release of sewage into the storm drain system.

The release occurred on August 2, at the construction site for the new Guest House. The sanitary sewer line was blocked with rocks, paper towels and cloth rags.

This is a friendly reminder to folks at SLAC of the environmental damage that non-biodegradable products can cause if flushed away.

The careless disposal of items like cloth shop rags, paper towels, and rubber gloves can block the sanitary sewer and increase SLAC's operation and maintenance costs. These items complicate the treatment of sewage and they can even get through wastewater systems into the environment. This costs the environment and can spoil the beauty of our coastline.

How can I make a difference?

Don't flush personal items at all. Anything that is not biodegradable should be put in the trash. Specifically anything containing plastic, but also latex products, sanitary napkins and even tissue!

You might be surprised to learn that tissue shouldn't be put in your toilet because it is not designed to break down like toilet paper. Also, don't dispose of gasoline, oil, antifreeze or other hazardous solvents and materials into the sewer system. These items can cause serious injuries to Utility Workers and cause damage to



Photo courtesy ES&H

This sewer backup occurred in Sept. 2000 in front of a building at SLAC.

the treatment facilities, the treatment process and the environment.

Sewage spills can be a very noticeable gushing of water from a manhole, or a slow water leak that may take time to be noticed. Don't dismiss wet areas that cannot be accounted for.

Look for:

- Drain backups inside the building
- Wet ground and water leaking around manhole lids on your street
- Seeping water from cleanouts, outside drains
- Unusual odorous wet areas: sidewalks, external walls, grounds/landscape

Please, use the sewer system for what it was designed to accommodate. Having a sewage backup is not a pleasant experience.

Who can I contact?

To report a sewer backup or related problem, please call the SEM service line at ext. 8901.

For questions or information, please contact Mike Hug (Ext. 4042).

For more information about Environmental, Health and Safety at SLAC, see: <http://www.slac.stanford.edu/esh>

Ergonomics Program Thrives at SLAC

By Miriam Boon

When former Medical Director Margaret Deanesly called for someone to look into the treatment and prevention of Repetitive Stress Injuries (RSI), a condition caused by repeated movements such as typing, nurse Gloria Labrador volunteered to look into it. Nine years later, Labrador has built a successful ergonomics program at SLAC—from the ground up.

After attending classes on ergonomics at UC Berkeley and the University of Michigan, Labrador returned to SLAC armed with the knowledge to fight RSI. She set up a program that pro-actively screens staff for RSI, and helps them set up a work environment that is ergonomically correct.

"Since we started the ergonomics program, we have decreased RSI claims by 90 percent," Labrador said. "I think we have a very good program over all. The success of the program was the result of the Lab being willing to provide the right equipment, and of employee compliance."

Pro-Active Treatment

In 1997, a form called "Physical Requirement and Exposures Checklist" was revised to include ergonomics. If it shows that a new employee's job puts her or him in danger of RSI, Labrador will contact the new hire about making an ergonomic appointment.

"We have gone pro-active," she says emphatically. Approximately fifty percent of the employees who are contacted by Labrador respond, and



Photo by Diana Rogers

Gloria Labrador (SHA) helps ensure that workstations are ergonomically correct.

their e-mail correspondences are kept on file for future reference.

Even though computers are more pervasive than ever at SLAC, the instance of RSI has surprisingly not increased over time. "To the contrary," Labrador explains, "because people are more aware, at the first sign they come to the Medical Department" for treatment.

Labrador is preparing to leave SLAC this month to start a new ergonomics program at a Bay Area computer chip firm. Once she leaves, John Turek (SHA), who has also been doing ergonomic evaluations for the last five years, will continue in this capacity.

A replacement for Labrador has not yet been chosen, but ergonomic appointments are still available by request.

For more information, call the Medical Department (Ext. 2281).

Squeaky Clean Sign, New Plants Welcome Visitors and Staff



Photo by Diana Rogers

The sign at the Main Gate sports a fresh new look, just in time for the 40th Anniversary Celebration. Jill Knapp (SEM) contracted Harris Construction to repair the sign. The company cleaned it, put a new coating on top, and then repainted the letters. New landscaping was placed around the sign as well.

—Miriam Boon

Women's Interchange at SLAC (WIS) is pleased to present:

Wanja Njuguna-Githinji

Editor and writer from Kenya's Nation Media Group
Recipient of the 2000 CNN African Journalist of the Year award
Currently a John S. Knight Journalism Fellow at Stanford

Speaking on:

"Issues that Affect Women in Africa"

Tuesday, October 22, 2002

12 Noon - 1 pm ~ Panofsky Auditorium

Talks Review Safeguards, Security

The Panofsky Auditorium was jam-packed for three sessions of the 1st Annual SLAC Security Briefing, held September 26. These one-hour briefings presented practical information about SLAC's safeguards and security program, along with helpful tips anyone could use both at work and at home.

Presentations included site access, property protection, cyber security, emergency preparedness, and foreign travel tips in a post-9/11 environment.

Survey Results Will Influence "Next Steps" in ISSM

Attendees were asked to fill out surveys asking for their opinion on the future direction of SLAC's Integrated Safeguards and Security Management (ISSM) program. The results of the 325 returned surveys will be analyzed by the Directorate as they plan ahead for the "next best steps" in this area.

So far, the survey responses have shown that 96% of SLAC staff members felt confident supervisors would take security concerns seriously and would take appropriate action.

The "ISSM Expo" tables set up in the breezeway as an adjunct to the Annual Briefing garnered several positive comments from staff. Attendees were given many helpful handouts, plus ISSM promotional items such as calendars and key tags. Hundreds of free house keys were made on-the-spot.

For more information on the ISSM program at SLAC, contact: Doug Kreitz, dougkr@slac.stanford.edu, Ext. 4550

The Interaction Point

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Send submissions to tip@slac.stanford.edu, or mail to TIP Editor, MS 58, Stanford Linear Accelerator Center, 2575 Sand Hill Road, Menlo Park, CA 94025.

TIP is available online at: <http://www2.slac.stanford.edu/tip/>

SLAC POLICIES AND PROCEDURES UPDATE

FY 03 Travel Reimbursement Rates For Visitors Coming to SLAC

The FY2003 travel per diem rates for travelers visiting SLAC have been released by the Government Services Administration (GSA).

Lodging Rate

The FY2003 lodging rate remains at \$150 maximum per day for Visitors, when SLAC is reimbursing the travel expenses.

Meal & Incidental Rate

The meals and incidental expense (M&IE) rate has increased from \$46 to \$50 maximum per day. The M&IE rate for the travel days to arrive at and depart from SLAC will continue to be reimbursed at 75% of per diem (\$37.50). The breakdown for M&IE is Breakfast 20% (\$10), Lunch 20% (\$10), Dinner 60% (\$30).

The lodging and M&IE reimbursement is reduced to 55% (\$82.50 per day for lodging and \$27.50 per day for M&IE) of the standard rate when the visit to SLAC is longer than 30 days. The reduction is effective from the first day of the trip.

Contact: Alison Minard, Travel Reimbursement Office, Ext. 4346, aminard@slac.stanford.edu

Transportation Update Regarding Refueling of GSA Vehicles:

Effective immediately, Sharon Heights Gas Station is to be used for "FUELING PURPOSES ONLY." GSA will no longer authorize repairs or parts purchased from this station. Only regular unleaded fuel is permitted for use in SLAC gasoline vehicles. Full service is to be used only by disabled persons.

Fueling Instruction for GSA Vehicles

Fueling instructions are available inside each vehicle's plastic credit card holder next to the credit card.

If you have an attendant manually charge your GSA credit card, make sure the charge states the actual items purchased. Do not accept a receipt for regular unleaded fuel that shows on the receipt "premium fuel" or "full serve" service.

Contact:

Lata I. Fangupo, Transportation Department, Ext. 3185, lata@slac.stanford.edu

Paula Grenda, Transportation Department, Ext. 2238, paula@slac.stanford.edu

Please Check That Your Colleagues Have The Correct SLAC Mailing Address

The Sand Hill Road Address Ensures Quicker Service

This is a good opportunity to remind everyone once again to use SLAC's correct street mailing address:

2575 Sand Hill Road
Mail Stop XX
Menlo Park, CA 94025

The Stanford Post Office Box Address Can Be Used

SLAC's PO Box number was changed from PO Box 4349 to PO Box 20450 on December 27, 1999. This change was announced on January 12, 2000 via the *SLAC Bulletin Board*.

The Stanford U.S. Post Office Manager has been forwarding the mail with the old PO Box address to 20450. However, at times the mail is not forwarded and instead is returned to the sender. Please alert your colleagues of the correct PO Box number if you wish to continue to receive mail through the Stanford Post Office.

Contact: Ziba Mahdavi (BSD), Ext. 4458, zibam@slac.stanford.edu

Flu Shots Available

in the **Medical Department**
(Bldg. 41, Rm. 135)

Tues., Wed., Thurs.
10:00-11:00 a.m.,
1:30-2:30 p.m.

No Appointment Necessary
For more information call Ext. 2281

Don't miss the annual

CYBER FAIRE

Wednesday, November 13, 2002
10 a.m. to 2 p.m., Panofsky
Auditorium Lobby & Breezeway



For more information see:

http://www2.slac.stanford.edu/comp/edu/cyber_faire.htm

Upcoming Events

Mon. 21 Oct. 2002 4:15 p.m.

Panofsky Auditorium,
(Refreshments at 3:45 p.m.)
SLAC DEPARTMENTAL
COLLOQUIUM
Ulrich Wiedner, Uppsala U
Hadron Physics with Antiprotons

Tues. 22 Oct. 2002 Noon

Panofsky Auditorium
SLAC WOMEN'S INTERCHANGE
SEMINAR
Wanja Njuguna-Githinji, Nation
Media Group, Kenya
Issues that Affect Women in Africa

Tues. 22 Oct. 2002 12:30 pm

Orange Room
SLAC EXPERIMENTAL SEMINAR
John Womersley, FNAL
What's new at D-Zero

Wed. 30 Oct. 2002 4:15 pm

Orange Room,
(coffee/cookies 4:00 pm)
SLAC ASTROPHYSICS SEMINAR
Raoul Viollier, U of Cape Town
Sterile Neutrino Dark Matter at the
Center and in the Halo of the Galaxy

Mon. 4 Nov. 2002 4:15 p.m.

Panofsky Auditorium,
(Refreshments at 3:45 p.m.)
SLAC DEPARTMENTAL
COLLOQUIUM
Yosef Nir, Weizmann Institute
Heavy Quark Physics

Wed. 13 Nov. 2002

Panofsky Auditorium, Lobby/
Breezeway, 10 a.m. - 2 p.m.
SLAC SCS *SPECIAL* EVENT
Staff Members, SLAC
Cyber Faire: Demonstrations and
Information

Mon. 25 Nov. 2002 4:15 p.m.

Panofsky Auditorium,
(Refreshments at 3:45 p.m.)
SLAC DEPARTMENTAL
COLLOQUIUM
W.K.H. Panofsky, SLAC
Nuclear Weapons After the Cold War

Please send additions to:
seminars@slac.stanford.edu

For complete event listings, see:
<http://www.slac.stanford.edu/grp/pao/seminar.html>

MILESTONES

5-Year Service Awards

Linebarger, Wayne (ESD), 35 years,
10/2/02
Quinn, Helen (THP), 25 years, 10/1/02
Gregory, Diana (BAS), 25 years,
10/10/02
Antrim, Ronald (PUR), 15 years,
10/1/02
Jacob, Ardie (WM), 15 years, 10/1/02
Brenkus, Frank (SEM), 15 years,
10/1/02
O'Connor, Clive (KLY), 15 years,
10/5/02

Retired

Walsh, Harry (MFD), 09/30/02

Deceased

Lebacqz, Jean Victor, (formerly with
KLY), age 91, on 9/30/02
Lundin, Aaron (formerly with EFD
and ESD), age 77, on 10/11/02

o submit a Milestone, see:
<http://www.slac.stanford.edu/pubs/tip/milestoneindex.html>

See Awards and Honors at:
<http://www.slac.stanford.edu/slac/award/>