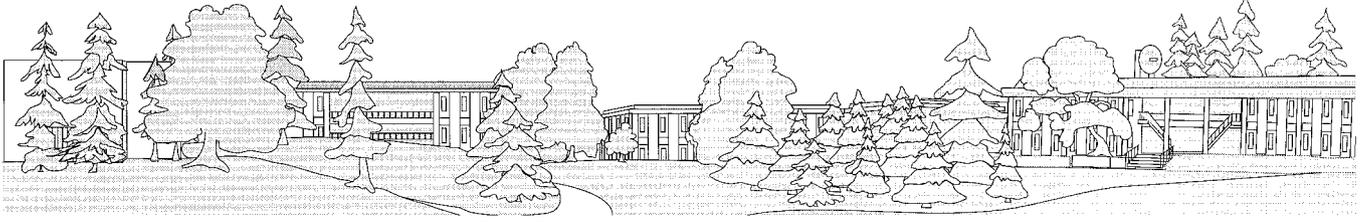


# The Interaction Point

Events and Happenings  
in the SLAC Community  
September 1993, Vol. 4, No. 9



## 23 Years of Summer Science



José Martínez

1993 Summer Science Program participants, standing (l. to r.), Karen McClenahan (SSP Coordinator), Khanh Nguyen, Alan Acosta, David Louk, Nevra Latham, Kevin Eng, Zhiling Zhuang, Deanne Taylor, Paul Hong, Anatoly Spitkovsky, Leticia Gregory, Levasseur Tellis, Breanna Brown, Pavel Gurevich (SLAC summer hire), Elaine LaLanne; center, José L. Martínez (SSP Director); kneeling (l. to r.) Jennifer Klay, Jack Harris (SLAC summer hire), Kari Kelton, Oscar De Los Reyes, Ana Ortiz, Eun Jin Lee, Julie Lee, George Melendez.

### By Sarah Morisseau

THE SLAC SUMMER SCIENCE Program began in 1970. In the 23 years that have followed, the program has been re-evaluated, modified, and updated in many ways. But the basic goal of the program, to give hands-on research experience to under-represented college students, has never changed.

"The program is an overview of SLAC research," explains education coordinator P.A. Moore. "It's not committed to a particular discipline, but to giving the students a sense of what's available. It exposes them to the scientific community."

The nine-week program is open to all college students majoring in science who have completed at least one year of college physics. However, SLAC gives preference to applicants who are "traditionally under-represented in the sciences." For the most part, this means women and ethnic minorities, but it has also included students from rural areas, especially those who do not live near a large research facility.

Monday through Thursday mornings are devoted to lectures taught by SLAC experts. In the after-

## SSP Alumna



FOUR YEARS AGO, Kelly Moore came to California for the first time as a participant in the SLAC Summer Science Program. Three years later, she returned as part of the GEM program for minority graduate students in engineering, at which time she designed a video surveillance system for SLAC's front and rear gates. This summer she was back yet again to design a link test box for use with the final focus test beam. The link test box is a diagnostic tool used to verify that information about the power supply, the magnet, and the current traveling through the magnet are being correctly transferred from the power supply chassis to the power supply interface.

That first summer at SLAC is a summer Kelly looks back on with fondness for many reasons. The Summer Science Program physics lectures taught her more about physics than she would have ever learned in her

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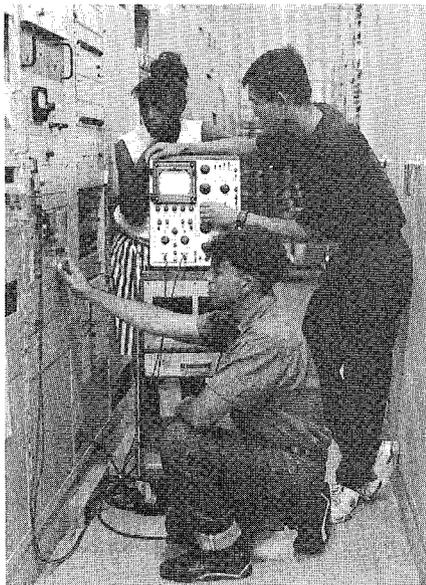
noon, the students work as part of a theoretical or experimental group, and on Fridays, the group takes a tour. This summer, they visited LLNL, Lick Observatory and Hewlett-Packard, among other places. At the end of the program, they each prepare a twenty-page report about their work at SLAC and present it to the group.

"Coming here, you learn a lot. But it's not something you could learn in class at school," says Eun Jin Lee, a math and computer science major from Wellesley College.

The participants learn about physics and engineering, yes. But they also learn about living on their own (they stay in the Manzanita Trailers on Stanford campus), about California (they have made weekend trips to Los Angeles, Berkeley and San Francisco), and



Julie Lee, Elaine LaLanne, and Anatoly Spitzkovsky (l. to r.) soldering an integrated circuit unit. This summer Julie worked at the test lab with Arnie Leeks on some of the components for the Next Linear Collider (NLC), Elaine designed and built a CCD camera to monitor synchrotron radiation from the storage ring for SSRL, and Anatoly worked with the Accelerator Theory group examining beam dynamic problems associated with the NLC.



Breanna Brown, Khan Nguyen, and Alan Acosta in a high-voltage-supply room in Radiation Physics. During the summer Breanna wrote a computer program to analyze data on radiation yields, Khan tested radiation monitors, and Alan built a muon detector gun.

about research in general—what it means to be a scientist, and what it takes to work in a large laboratory like SLAC.

"These students are incredibly lucky to get a summer job in a field they might be going into," P.A. says. "It helps the students make a decision whether a science field is for them and whether a research position is for them."

"I'm not sure what I want to do after college. Every summer, I've done different things. I worked in a electronic publishing company and then as a computer consultant. But I've never done research—this was my last time to find out what it is like," Eun Jin says.

And does she like it? "Well, I might not discover anything spectacular this summer, but I certainly got the flavor of it," she says.

"SLAC is the perfect environment."

Paul Hong, a junior from Southwestern University, knew when he came to SLAC that he wanted to work in a research lab later in life.

"What I wanted was research experience. I wanted to know what the real world for a mechanical engineer or a physicist is like." What he saw of that real world was better than he expected.

"I thought (I would have) boring work to do all day. But once I got involved, it's neat. The people here are really relaxed; they've helped me out a lot."

"Students come in with a stereotypical image of science—the white coat in a lab. This program supplants that with a more realistic image of what research is," P.A. says. "At worst, the student finds out that science is not for them."

**ALUMNA** (Continued from page 1)

required classes. "It was also my first real hands-on experience with electrical engineering work," she says. "I really treasure that."

Her experience in the Summer Science Program had an obvious influence on her education. She majored in electrical engineering as an undergraduate at Tuskegee University in Alabama, and then applied for the GEM scholarship to continue her studies in graduate school. Through the GEM program, which includes a full-tuition scholarship for graduate

school in engineering, she is currently working toward her master's degree in electrical engineering with an emphasis on environmental issues.

During the summers when she wasn't at SLAC, Kelly worked with the Environmental Protection Agency (EPA) in Alabama. When she graduates from Tuskegee next spring, she plans to become a commissioned officer in the US Public Health Service with the EPA. But you never know—she may end up at SLAC just one more time.

—Sarah Morisseau

## Staff ID Card Replacement Fee

A NEW STANFORD UNIVERSITY POLICY will require all students, faculty, and staff to pay a \$10 replacement fee for identification cards, whether lost, stolen, or simply misplaced. The policy is effective immediately.

SLAC employees who need a replacement ID card should go to the Personnel Office (A&E Room 240) to make the request. A new card will be delivered to Personnel within three weeks, at which time the employee must pay the \$10 fee. The Personnel Office will transfer the money to Stanford. New cards are delivered to all employees each December at no cost.

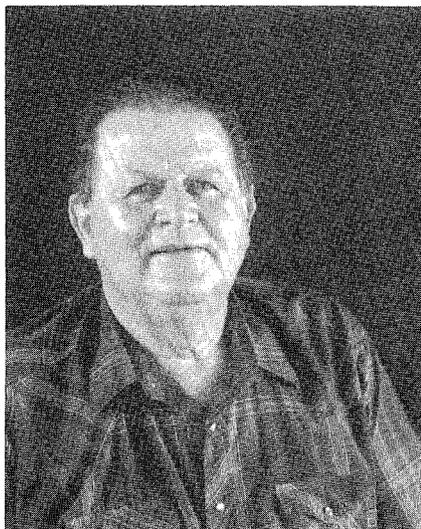
—Sarah Morisseau

### Welcome Guests and New Employees

**James Allan**, ESH; **Shenjian Chen**, Experimental Group C; **Lynn Cominsky**, Time Projection Chamber; **Anamaria Font**, Theory; **Brian C. Fuss**, Mechanical Engineering; **Simon George**, SSRL; **Ying Han**, Experimental Group C; **William Hurja**, SSRL; **Anthony Johnson**, Research; **Roger Jurgensen**, Power Conversion; **Valentin Khoze**, Theory; **Gerhard Materlik**, SSRL; **Gilbert Moulitaka**, Theory; **Alex Pomarol**, Theory; **Michael Racine**, Cryogenics; **Kent Robinson**, SSRL; **Aldo Rossi**, Mechanical Fabrication; **Eric Sather**, Theory; **George Simon**, SSRL; **Makoto Tobiyama**, Experimental Group C; **Wuguang Yan**, Experimental Group C.

## SSRL Retiree

Bob Filippi of SSRL took advantage of the Staff Early Retirement Incentive to retire in August.



A.J. (Bob) Filippi

All meetings are held in the Orange Room, unless another location is listed. Larger meetings and conferences have a contact listed. Please notify the Public Affairs Office of any additions or changes by calling ext. 2204 or sending e-mail to NINA@SLACVM.

### October 6

SU Alumni Assn. Workshop Auditorium

### October 7-9

Computer Advisory Committee Meeting

### October 9

Science Teachers Workshop  
H. Quinn, P.A. Moore  
TBA

### October 11

Final Focus Test Beam Collaboration Meeting

### October 11

SLD Week  
TBA

### October 12, 8:30 AM

Linac94 Program Committee Meeting  
Beige Room

### October 13

Linear Collider Conference  
E. Paterson, K. Asher  
Auditorium/Meeting Rooms

### October 15-16

SPC Meeting

### October 23

Science Teachers Workshop  
H. Quinn, P.A. Moore

### October 25-26

SSRL 20th Annual Users Meeting Auditorium

### October 27-29

SU Alumni Assn. Course Auditorium

EVENT CALENDAR: October 1993

# RETIREES & 50,000 Zs FETED



AUGUST 31, 1993, was a day of celebration for SLAC. Hundreds of employees gathered on the green to commemorate a successful year of research and to say goodbye to the nearly 150 people retiring that day.

"Science is what we do at SLAC; it's our business. And this year, we've done some very good science," said David Leith, Associate Director, Research Division.

In particular, Leith mentioned the recent SLC run which used a polarized electron beam to create 50,000 Z particles. "Despite many fewer Zs collected and detected at SLD than at CERN," he said, "the

power of the polarization is such that this is the single best test of the Standard Model."

"The SLC met or exceeded every one of its goals," added Technical Division Associate Director Kaye Lathrop. "Congratulations to all who made that fact possible."

Arthur Bienenstock, Associate Director, SSRL, called it the "year of structural biology" for his division. It was not an easy year at first—a smaller-than-normal budget forced SSRL to lay off some employees and refrain from hiring replacements for retirees. "We had

a really grim start this year, but it turned out to be absolutely glorious," he said, noting that SPEAR "ran beautifully" for the six-and-a-half months it was in operation. "The year went well primarily because of the SSRL staff, but also because of the new strong links with SLAC," Bienenstock said.

"Our research goes from AIDS to Z bosons," SLAC Director Burton Richter said. "We're a big piece of the University and the national science program, and we've done a great job this year."

—Sarah Morisseau

## *The Way We Were*

### 1970

On August 23, 1970, the accelerator attained an energy of 22.1 GeV—surpassing by three percent the April 27, 1969, record of 21.5 GeV.

### 1971

The newsletter previously called *SLAC News* was renamed *The Beam Line*. That name was later used for the world-wide scientific magazine we know today.

Hamburgers, hot dogs, potato salad and "a golden liquid, white and frothy on the top" attracted about 1200 people to work on a Saturday—but not to work, to play. September 18, 1971, was the first annual SLAC Family Day, and a successful one. Employees were allowed to drive their families around the site, and several areas were open for viewing. Art displays, films, softball games, and above all, good food and drink, made the event the first of many.

