



Published weekly for employees of Lawrence Livermore National Laboratory

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# Laboratory names new managers for DNT, Operations

## Goodwin to manage stockpile stewardship

NEWSLINE STAFF REPORT

Bruce Goodwin has been named by Lab Director C. Bruce Tarter as associate director for Defense and Nuclear Technologies. His appointment was confirmed by the University of California Regents and by the National Nuclear Security Administration (NNSA) Thursday.

"Bruce Goodwin is an outstanding scientist and a fine leader," Tarter said. "He is extremely well-qualified to take on the broad responsibilities of stockpile stewardship."

In his new position, Goodwin will be responsible for much of the management of NNSA's stockpile stewardship program, including the broad interdisciplinary programs of nuclear weapon physics, design, system analysis, materials and engineering.

Since 1996, Goodwin has served as the B Program/B Division leader within Defense and Nuclear



Bruce Goodwin

Technologies. A physicist and engineer by training, Goodwin joined the Lab in 1985. His research interests center around the physics of primary nuclear explosives and hydrodynamic instability.

Prior to joining the Lab,

See **GOODWIN**, page 3

## Hurd will join Lab's Strategic Operations

NEWSLINE STAFF REPORT

Merna Hurd has been named by Lab Director C. Bruce Tarter as associate deputy director for Strategic Operations. Her appointment was confirmed Thursday by the University of California Regents and the National Nuclear Security Administration.

"Merna brings added value to our senior management team," said Tarter. "Her qualifications are outstanding and our Lab will benefit from her experience and diverse background."

Hurd is currently the senior adviser to the Department of Energy. In her new role as associate deputy director, she will work closely with

**More on the new leaders**

— Page 3



Merna Hurd

Deputy Director Michael Anastasio on the Lab's external relations and internal operations changes.

"Merna's unique experience in Washington and her background will be extremely valuable," said Anastasio.

As senior adviser to the

See **HURD**, page 3



FILE PHOTO

At 12 trillion operations per second, the Lab's ASCI White ranks as the world's fastest supercomputer.

## Lab's ASCI White rated the world's fastest

By David Schwoegler

NEWSLINE STAFF WRITER

Four National Nuclear Security Administration supercomputers finished in the top six among the world's fastest computers. On the list, issued in June by TOP500, the Laboratory took the number one and the number four slots with its ASCI White and ASCI Blue Pacific computers.

Both machines are part of NNSA's Accelerated Strategic Computer Initiative, a 10-year program that is striving to reach 100-tril-

lions calculations per second by 2005. That speed is necessary to help scientists maintain the safety and reliability of the U.S. nuclear stockpile by simulating — in three dimensions — the aging and operation of nuclear weapons.

Accurate computer simulation is essential to retain confidence in the stewardship transition of world's most complex arsenal to a new generation of scientists and engineers that has neither designed nor tested a nuclear weapon.

"The Accelerated Strategic Computing Initiative, or ASCI, is the backbone of our stockpile stewardship program," said Secretary

See **ASCI**, page 8

## DDLs talk to kick off celebration of Lawrence

Lawrence M. Krauss, an internationally known theoretical physicist, will present "The Atoms Inside Us: Restless Galactic Travelers," in honor of the centennial celebration of the birth of Ernest O. Lawrence.

Krauss' talk is part of the Director's Distinguished Lecturer Series and takes place at 3:30 p.m. Tuesday, July 31, in the Bldg. 123 auditorium. Director Bruce Tarter invites all employees to attend.

Krauss is the Ambrose Swasey professor of physics, professor of astronomy, and chair of the

See **DDLs**, page 8

## Pehrson to begin recovery after suffering major stroke

On June 19, Dave Pehrson, principal deputy associate director for Engineering, suffered a major stroke. He was taken to Valley Care hospital, where he remained for over four weeks. His family reports that although Pehrson is aware and responsive, he is suffering from extensive paralysis and cannot speak.

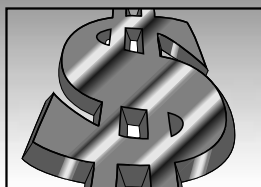
Pehrson was transferred this week to the Kentfield Brain Injury Center in San Rafael. His doctors have stressed to the family that each stroke is unique, and the degree and speed of recovery

See **PEHRSON**, page 8



Saturday science sends speaker SOS

— Page 2



The dollars, sense of science funding

— Page 5



Back to class thanks to Lab

— Insert



## LAB COMMUNITY NEWS

### Weekly Calendar

Technical Meeting Calendar, page 4

Friday  
**20**

Today is the deadline to sign up for the **Summer 2001 Student Research Symposium**, to be held on Aug. 2 from 2:30 –3:15 p.m. in the West Café. The symposium provides students a forum to present their summer research. For more information and to register, go to: <http://education.llnl.gov/symposium>

Wednesday  
**25**

All employees and their families are invited to **LLESA's 2001 Water Carnival** from 5-8 p.m. at the Lab pool. Admission is free. There will be games for all ages (in and out of the water), water balloon toss, face painting, entertainment, an inflatable jumper, pinatas and a barbecue dinner available for purchase for \$5. Sodas, ice cream and candy will also be available for purchase.

...  
A representative from **Fidelity Investments** will be on site to meet with employees Wednesday and Thursday and Aug. 1-2. To schedule an appointment, call the Fidelity central reservation system at 1-800-642-7131. Be sure to specify you are an LLNL employee.

Thursday  
**26**

**Adobe's revised suite of software** will be demonstrated at 9 a.m. in the Bldg. 361 auditorium. The first presentation will show how to use Adobe Acrobat 5.0. The second will demonstrate how Adobe Illustrator 9, Photoshop 6, InDesign 1.5, Acrobat 5, GoLive 5, LiveMotion, Premiere 6, and After Effects 5 work together. Contact: Troy Bare, [tbare@adobe.com](mailto:tbare@adobe.com) or Candace Gittins, [gittins1@llnl.gov](mailto:gittins1@llnl.gov).

Friday  
**27**

Martha Krebs, director of California NanoSystems Institute, Gary Ellis, executive secretary of the National Science and Technology Council, and Laboratory Executive Officer Ron Cochran will discuss **science policy, funding and ethics** during a special panel presentation at 10:30 a.m. in the Bldg. 123 auditorium. For additional information, go to <http://education-db.llnl.gov/sbb/default.html>.

...  
The Benefits Office's brown-bag series continues at 12:15 p.m. in Bldg. 571, room 2301 with a session on how to enhance your financial security by participating in the **Tax-Deferred 403(b)**. No pre-registration is required. Bring your lunch and your questions.



LAB TV

BROADCAST  
SCHEDULE

The latest segment of "Technology Today," on calcite crystals with Lab scientist Christine Orme will air on community TV Channel 30 Monday at 8:30 p.m. and Tuesday at 6:30 p.m. It will air on Lab TV Channel 4 on Tuesday and Thursday at 10 a.m. and 2 p.m.

## Science on Saturday seeks new speakers

By Elizabeth Campos Rajs

NEWSLINE STAFF WRITER

When physicist Bruce Remington applied for a competitive NASA grant earlier this year, one of the requirements was participation in community outreach.

Remington and his co-investigator Jave Kane cited the Lab's Science & Technology Education Program and its many outreach efforts in the application, which likely played some role in ultimately winning the grant.

For his part, Remington has signed on as a presenter in next year's Science on Saturday series.

"The funding agencies such as NASA have realized that the most effective way to encourage the scientific community of the U.S. to contribute to education was directly through the research grant application process," he said. "It is 'suggested' in the NASA grant application materials that the applicant consider developing a education outreach plan in parallel with the research effort.

"In our grant application, we were fortunate to find an enthusiastic partner at LLNL in Dick Farnsworth, who showed us that there were several existing avenues for establishing this education outreach, one being Science on Saturday," Remington added.

Richard Farnsworth, who organizes the Science on Saturday series for the Lab's Science & Technology Education Program, said presenting a lecture in the series benefits everyone. The kids learn about cutting edge research, the Lab is providing an opportunity for science education and the speaker can use the presentation for other endeavors.

"Many research proposals have a component requiring educational outreach. They can do that through Science on Saturday. Participating in this lecture series also gives presenters something they can take on the road," Farnsworth said. "We partner our scientists and engineers with teachers who can offer suggestions for tailoring a presentation to a teen-age audience. We also provide a graphic artist so that their materials are professionally done."

The best reward, however, is the experience of sharing science with an interested audience of young minds, he added.

Farnsworth is looking for presenters for next spring's series of talks now so that they can be partnered with teachers this summer to hone their presentation for a teen-age audience.

Science on Saturday is a six-week series of free 90-minute talks geared toward middle and senior high school students. The lectures are offered Saturday mornings during February and March in the Bldg. 123 auditorium, and are open to students, their parents or guardians and teachers.

Don Correll, STEP director, noted that Science on Saturday is successful due to the efforts of a large cross-section of the Lab's employees, including members of the Livermore Chapter of Sigma Xi.

"It is with the help of Sigma Xi that topics can be selected from the forefront of the Lab's science and technology research with presenters volunteering their time," Correll added.

Biologist Joanna Albala had presented at Expanding Your Horizons and the Edward Teller Science & Technology Symposium before she was approached about speaking at the Science on Saturday lecture series last March.

Although talking to an audience of young students or lay people was not new for her, what was unexpected was the response she received from the nearly 300 middle and high school students on that early Saturday spring morning.

"I got a lot of very nice feedback," said Albala, who works in the Biology & Biotechnology Research Program. "It was a very rewarding experience. It's nice to reach out into the community. If we don't do it, we aren't going to change how people view science."

For her presentation, she worked closely with Tracy High School teacher Kirk Brown to refine her talk for a younger audience.

For physicist Chris Ebbers, the experience of speaking to 300 teen-agers at once was a new one.

"I was amazed at how many kids showed up by themselves or with their friends. That was very encouraging to me," Ebbers said. "And they weren't just from neighboring cities. They came from Tracy, San Jose and Santa Clara. Many of them came a long way on an early Saturday morning."

For Ebbers, who works in the Lasers Program and is assigned to the National Ignition Facility Programs, participating in Science on Saturday is his way of giving back to the community.

"When I grew up, high school teachers volunteered their time teaching science classes in the summer. That sparked my interest in science. This is my way of giving back to the community," Ebbers said. "I was really glad I did it. It was a great feeling to walk out of there. I would really encourage others to do it. It's not that much effort, but the rewards and benefits to the community are tremendous. It's an absolutely fabulous program."

Ron Baskett, Jim Ellis and Mike Bradley of ARAC did a team presentation at last year's lecture series on why the wind blows. They built a model of the mountains and dragged ropes across to show how mountains affect the winds and invited students on stage for the demonstration. They were assisted by Livermore High School physics teacher Sue Johnston.

"She stepped in and did part of the presentation," Baskett said. "We had quite a full auditorium and the kids asked quite a few questions after the presentation. We were really happy with the feedback we received from the kids."

For more information about Science on Saturday or to sign up as a presenter in next year's series, call Dick Farnsworth at 2-5059.



## RETIREMENT

### John F. Holzrichter

After 29 years of dedicated service at the Laboratory, John F. Holzrichter has decided to retire.

His retirement celebration is scheduled for Tuesday, July 24, from 4-6 p.m. in the West Cafeteria.

The reservation cost is \$15, which includes refreshments and a gift.

Please RSVP by Monday, July 23, to Tracey Barnes at 2-5214, or Patti Carter 2-7401. Checks may be made payable to Tracey Barnes.

## Newsline

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## NEW LAB LEADERS



## Goodwin brings outstanding record of achievement to job

### **Bruce Goodwin** AD, Defense & Nuclear Technologies

Bruce Goodwin, the leader of B Division within the Defense & Nuclear Technologies Directorate, has been appointed AD of that directorate, effective immediately.

As the associate director, Goodwin will be responsible for much of the management of the Lab's work in the Stockpile Stewardship Program, including broad interdisciplinary programs of nuclear weapons physics, design, systems analysis and engineering. Goodwin will manage the Lab's largest program, with more than 1,600 employees.

Goodwin will also work with Michael Anastasio, the deputy director for Strategic Operations, to help develop and implement the Laboratory-wide national security program. Goodwin replaces Anastasio, who left his role as DNT AD when he was appointed deputy director in May.

"Bruce is an outstanding scientist and leader, and I am extremely confident in his ability to do the DNT job," said Lab Director Bruce Tarter.



Bruce Goodwin

"Bruce has an outstanding record of accomplishment within the Defense & Nuclear Technologies Directorate. He is well qualified to assume this new role and ensure the program's continued success," added Anastasio.

"I look forward to this opportunity to ensure a strong and integrated program," said Goodwin of his appointment. "I want to make sure the highest quality personnel are recruited and retained to ensure DNT's continued success."

Goodwin joined the Lab in 1985 as a physicist in primary design in B Division. Subsequent assignments include project leader for boost physics and materials research, design group leader, and acting B Division/B Program leader. He was named the

permanent B Division leader in 1996.

Prior to coming to the Lab, Goodwin spent four years as a primary design physicist at Los Alamos National Laboratory. Prior to that he was a research assistant in astrophysics at the University of Illinois and NORDITA in Denmark.

In addition to the physics of primary nuclear explosives, his research interests include hydrodynamic instability and turbulent mixing. Goodwin also was the nuclear test design physicist for several primaries and experiments.

He is a member of the Physics Division Review Committee at Los Alamos, a member of the Scientific Committee of the International Workshop on the Physics of Compressible Turbulent Mix, and chair of the U.S./U.K. Joint Working Group on Weapons Physics.

Goodwin is also a member of the American Physical Society, the American Institute of Aeronautics and Astronautics, and the American Association for the Advancement of Science. Last year he was honored by *Aviation Week & Space Technology* magazine for his contributions to the global field of aerospace. He is also the recipient of several awards for excellence and distinguished achievement from the Department of Energy.

Goodwin earned his bachelor's degree in physics from City College of New York and his master's degree and doctorate in astro and aero engineering from the University of Illinois.

## Former DOE adviser specializes in operations issues

### **Merna Hurd** Associate deputy director for Strategic Operations

Merna Hurd, a senior adviser to the Department of Energy, will join the Lab as the associate deputy director for Strategic Operations, beginning Aug. 6.

Hurd will assist Deputy Director Michael Anastasio on the Lab's external relations and internal operations issues.

"Merna's in-depth experience in Washington and her broad management background make her the ideal choice for this role," said Anastasio.

"I look forward to joining the team at Livermore and interacting with employees on a broad range of organizational issues," Hurd said.

Hurd joined DOE in 1998, where she has been responsible for program and policy direction, restructuring project management practices, and management reviews of key projects, including contractor accountability, science education, workplace improvements and workforce diversity.

Prior to joining DOE, she served as deputy group manager, and operations manager for

Science Applications International Corp., where she led SAIC participation in teaming agreements and proposal developments for several contracts with Los Alamos National Laboratory and other research facilities. From 1991-95 she served as president of Air & Water Technologies' New England region; she was vice president of Environmental Testing & Treatment Technologies from 1982-87 and vice president of the engineering division and Clement & Associates in 1981. From 1977-81 she held several management positions at the Environmental Protection Agency.

Hurd is a member of the Harvard School of Health Public Advisory Board and a



Merna Hurd

previous member of the Environmental & Occupational Health Services Institute at Rutgers. She was president of the board of directors of the New England Environmental Business Council.

Honors include an outstanding management performance award at EPA, and outstanding public administrator for the state of Delaware.

A registered professional engineer, Hurd earned her bachelor's degree in civil engineering and her master's degree in sanitary engineering from the University of Nebraska.

### **HURD**

*Continued from page 1*

Department of Energy, Hurd was responsible for program and policy direction, operational management and key project reviews. Prior to joining the Department of Energy, Hurd was the deputy group manager and operations manager for Science Applications International Corporation. She has also worked for Air & Water Technologies, Environmental Testing & Treatment Technologies and Clement and Associates. From 1977 to 1981, she served as associate deputy assistant administrator for Water

Programs for the Environmental Protection Agency in Washington, D.C.

A registered professional engineer, Hurd holds a MS in sanitary engineering and a BS in civil engineering from the University of Nebraska. She is a member of the advisory board for the Harvard School of Public Health and previously served as a member of the Environmental & Occupational Health Services Institute at Rutgers.

"I am looking forward to joining the Lab," said Hurd. "I have a lot of regard for Livermore and a lot of respect for the employees. They are extremely talented."

Hurd will begin her new assignment Aug. 6.

### **GOODWIN**

*Continued from page 1*

Goodwin worked at Los Alamos National Laboratory. He has a Ph.D and master's degree in aeronautical and astronautics engineering from the University of Illinois and a bachelor's in Physics from City College of New York.

In 2000, Goodwin was honored by *Aviation Week & Space Technology* magazine for his significant contributions to the global field of aerospace.

"I am honored to be entrusted with such an important job at this lab and I look forward to working with all the employees in the directorate," said Goodwin.



## NEWS YOU CAN USE

## Motorcycle survey reveals parking of main concern

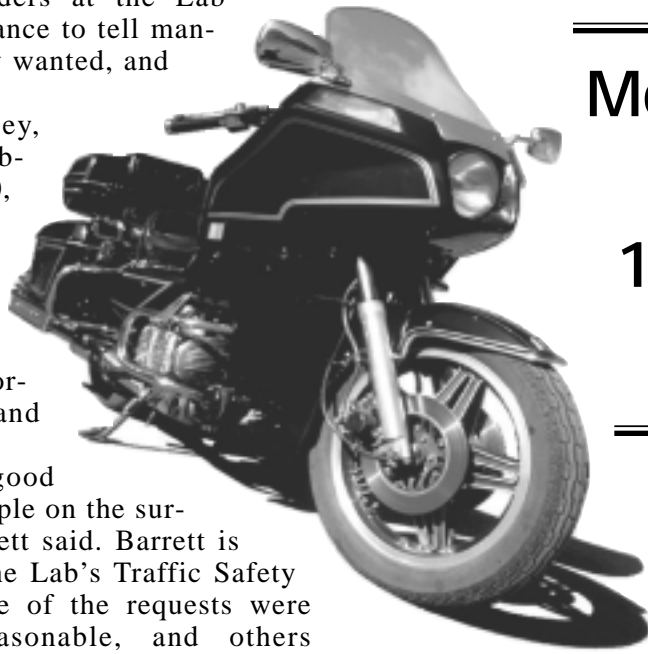
Motorcycle riders at the Lab were given the chance to tell management what they wanted, and the results are in.

The survey, which was distributed in June 2000, allowed Lab motorcyclists a chance to speak out about what they need and to enhance their motorcycle commute and parking.

"We got a good response from people on the survey," Dennis Barrett said. Barrett is the chairman of the Lab's Traffic Safety Committee. "Some of the requests were feasible and reasonable, and others weren't. We took everything that was written into consideration."

One hundred and seventy two motorcyclists responded to the survey. Of those, only 53 ride in any weather, while 116 ride in warmer or dryer weather. Almost half of respondents also said that they need motorcycle parking near their building.

"After looking at the results of the survey, we've started working with Plant Engineering to make motorcycle parking



### Motorcycle survey results

116 fair weather riders

53 any weather riders

that conforms to what riders want," Barrett said. One of the requests frequently made through the survey was for parking places made from concrete as opposed to asphalt, since asphalt can soften in hot weather and the motorcycle's kickstand can sink into the asphalt.

"They've definitely started to accommodate motorcycle parking at the Lab," Harley Davidson rider Collette Nida said. "But the new parking that was built by my building is on an uneven grade, so the bike

tilts up or down." That sentiment was echoed by Jo Glover, who rides her Honda motorcycle to work in dry weather.

"They built the new parking on a slant, so I don't use it," Glover said. "Honestly, I don't think much has changed, but there has been an increase in the number of motorcycle riders I've seen." For Glover, though, the most difficult part of riding to work is not a lack of parking.

"It's really difficult to show the guards your badge while taking your helmet off and holding on to the clutch and the brake," she explained. "I understand why they need us to do it, but it's not very easy."

Despite the current lack of motorcycle parking, Barrett thinks that the Lab is coping well with the requests of the motorcyclists who filled out the survey.

"Overall, I think we're doing a better job of taking care of our motorcyclists," Barrett said. "There are some areas for improvement, and we're working on those to give motorcyclists what they need."

## Technical Meeting Calendar

Monday  
**23**

### CHEMISTRY & MATERIALS SCIENCE, NEW FRONTIERS SYMPOSIUM

"The Failure of Materials By Fatigue: From Aero-Engines to

Bio-Prosthetics and MEMS Devices," by Robert O. Ritchie, Lawrence Berkeley National Laboratory. 3 p.m., Bldg 235, Gold Room (uncleared area). Contact: Wayne King, 3-6547, or Kristine Ramirez, 3-4681.

JULY 23, 24, 25, 26, 27

### MATERIALS RESEARCH INSTITUTE

"Continuum Simulations in Mechanics," by Michael Ortiz, CalTech. 10 a.m., Bldg. 661, room 7. Contact: Miriam Rinnert, rinnert1@llnl.gov.

Tuesday  
**24**

### ENERGY & ENVIRONMENT

"The Dilemma of Linking Science with Policy: Distinguishing Among Values, and Good or Appropriate

Science," by Kristiina Vogt, University of Washington. 2 p.m., Bldg. 123, Conference Room A (open area). Contacts: John Isom, 2-2038, or Jeff Stewart, 2-3752.

### V DIVISION

"Imaging, Correlation and Strong Laser Fields: Revealing Hidden Manybody

Dynamics," by Wendell T. Hill, III, Engineering University of Maryland. 1 p.m., Trailer 1726 conference room. Contact: Ronnie Shepherd, 3-7456.

JULY 24, 25, 26, 27

### MATERIALS RESEARCH INSTITUTE

"Hybrid Atomistic and Continuum Modeling for Solids," by Robert Rudd, LLNL. 2:30 p.m. each day, Bldg. 661, room 7 (open area). Contact: Miriam Rinnert, rinnert1@llnl.gov.

Wednesday  
**25**

### SYSTEMS & NETWORK DEPARTMENT

Macintosh Technical Seminar Series. 1:30 p.m., Bldg. 543 auditorium (uncleared area). Two presentations: "Wrap-Up of MacWorld, New York," by Mike Mills, LLNL Apple systems engineer. "Apple's Work and Enhancements to the GNU C Compiler (GCC)," by John Graziano and Stan Shebs, Apple's Mac OS X Compiler Group. (The Macintosh Technical Seminar Series normally occurs every 3rd Wednesday of the month at 10:30 a.m. This month it was postponed by one week due to MacWorld, New York taking place during the week of July 16.) Contact: Becky Frank, 3-2879.

Thursday  
**26**

### ENERGY & ENVIRONMENT

"Consequences of Low Plant Carbon Balance Instigated by Fluctuating Atmospheric CO2

Levels," by Sharon Cowling, UC, Santa Barbara. 10 a.m., Bldg. 543 auditorium (uncleared area). Contacts: Starley Thompson, 3-9923, or Karen Common, 2-2486.

Friday  
**27**

### INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"The Paraver and Dimemas Parallel Performance Tools," by Jesus Labarta, European

Center for Parallelism, Barcelona. 2 p.m., Bldg. 451, room 1025 (uncleared area). Contacts: Jeff Vetter, 4-6284, or Leslie Bills, 3-8927.

Tuesday  
**31**

### V DIVISION

"At the Focus: 3-Dimensional Ultrashort Pulse Dynamic Microscopy," by David Fittinghoff, UC San Diego. 10

a.m., Trailer 1726 conference room (unclassified area). Contacts: Paul Springer, 3-9921, or Linda Ely, 2-8247.

**The deadline for the next Technical Meeting Calendar is noon, Wednesday, July 25.**

Send your input to [tmc-submit@llnl.gov](mailto:tmc-submit@llnl.gov). For information on electronic mail or the newsgroup [llnl.meeting](mailto:llnl.meeting), contact the registrar at [registrar@llnl.gov](mailto:registrar@llnl.gov).

## EDUCATION



## Las Positas laser optics graduates alight at the Lab

By **Stephanie Esposito**

NEWSLINE STAFF WRITER

The Laser Optics Program at Las Positas College has added benefit to the Lab's own laser programs now that a majority of graduating students have decided to apply for jobs at the Lab.

Although the Lab has worked in collaboration with Las Positas in creating the Laser Optics curriculum, Karen Kiernan, special assistant to the AD in the Physics and Advanced Technology Directorate, says that employing students at the Lab was not the sole purpose of the program.

"The Lab does need laser technicians...but we did not start this just to employ (the students) at the Lab," Kiernan said. "One of the reasons that we did this was for national needs."

Yet most of the students from the program have decided to work part time in laser programs at the Lab, and out of the recent 12 who have finished four laser courses, over half have accepted jobs at the Lab or are in the process of applying for positions.

"NIF does need laser technicians," Kiernan said, "so the program is helping prepare for that." Not only did the Lab help put together the curriculum that makes up the Las Positas program, but Lab employees teach the courses.

"When we put the program together, the people at Las Positas said, 'We need people with expertise to teach the curriculum,'" Kiernan said, "so Lab employees have been teaching the courses."

These Lab classes are taught on-site in Bldg. 161. Laser equipment is very expensive, so holding the classes at the Lab is more affordable to the program and makes the lasers available for teaching and hands-on learning.

To date, two of the 12 laser optics students became the first to complete all nine courses required for a full Laser Electro-Optics Technology (LEOT) Certificate. The other 10 are looking to finish their final classes in order to obtain certificates as well.

Students in the program have received multiple job offers from a variety of places, and while

most have accepted jobs at LLNL, a few students have also accepted positions at Sandia National Lab and in private industry.

According to Kiernan, with the knowledge and expertise the students have gained from the program, many have earned promotions within their company or better positions at other companies.

Las Positas has now begun the process of submitting the LEOT course to the state for accreditation in hopes that with the addition of general education courses students in the program will also have the option of earning their AA degree.

A memorandum of agreement has also been signed between Las Positas College and UC Davis for a collaborative bachelor's degree in optical engineering. According to Kiernan, the students will spend their first two years at Las Positas taking lower division courses, including optics courses taught by UC professors, after which the students who successfully complete the courses will be guaranteed a transfer to the UC Davis program to complete their engineering degree.

## Lab, Sandia and Las Positas team to offer laser technology certificate

Las Positas College, in conjunction with Lawrence Livermore and Sandia laboratories, is offering classes leading to a certificate in laser technology.

The program, now in its fourth year, was instituted to address the large demand for trained Laser and Electro-Optic Technicians (LEOT) at the Lab and throughout the Bay area. Classes start on Monday, Aug. 20, and include "Introduction to Lasers" and "Laser Components, Devices, and Measurements."

Lab physicist Bill Molander, a specialist in optics, lasers and spectroscopy, teaches "Introduction to Lasers." Lab physicist Chris Ebberts, also a laser specialist, teaches "Laser

Components, Devices, and Measurements."

Laser technology course 50, "Introduction to Lasers," will be held Mondays (6:30-8:20 p.m.) and Wednesdays (6:30-9:20 p.m.). The Monday classes are classroom lectures and the Wednesday classes are laboratory sessions. The first class meets at Las Positas College, but subsequent classes will be held at LLNL. The course covers the principles of operation of lasers, basic laser characteristics, and the major types of lasers.

Although the primary goal of the program is the training of LEOTs, the classes may be useful for laser safety officers, procurement coordinators, and anyone else who uses lasers in the course of their work assignment. The main emphasis is on

understanding concepts and gaining hands-on experience, however, some math, at the level of high school algebra is required.

Laser technology 52A, "Laser Components, Devices, and Measurements," will be held Tuesdays (6:30-8:20 p.m.) and Thursdays (6:30-9:20 p.m.), beginning Tuesday, Aug. 21, at the college. This class is the third in the certificate program and requires three prerequisite courses: Electronics Technology 50, "Fundamentals of Electronics," Laser technology 50, "Introduction to Lasers," and Laser technology 51, "Fundamentals of Optics."

For more information, contact Bill Graham, Mechanical Engineering superintendent, 2-8922.

## 'Science Policy, Funding and Ethics' subject of summer 2001 panel discussion

By **Ali Carrigan**

NEWSLINE STAFF WRITER

Learning how to balance science, politics and funding can take years. The members of the third panel in the series are hoping to save Lab employees and summer students some of that time by sharing their thoughts on "Science Policy, Funding and Ethics."

The panel, part of the Institutional Education Committee and Science and Technology Education Program's "School-to-Career" series, will be held on Friday, July 27, at 10:30 a.m. in the Bldg. 123 auditorium.

While the other two panel sessions have been aimed specifically at summer students or young employees, panel organizers stress that this topic can provide insights for all Lab employees. Ron Cochran, Gary Ellis and Martha Krebs will share advice on getting funding and navigating the politics often involved with science.

"Scientists' careers are often at the mercy of federal funding," moderator Kathy Cromwell said. Cromwell is also the Lab's congressional liaison. "We want to ask our panelists about the direction that they think science funding is headed."

Cochran, the Lab's executive director, is responsible for assisting both Lab Director Bruce Tarter and the associate directors in representing the Lab both internally and externally. He currently oversees the Lab's congressional affairs, and has worked for the Department of Energy Office of the Secretary to secure approval and funding from Congress. Cochran

received his bachelor's degree in engineering from the University of Tennessee in 1964 and his master's degree in engineering from Ohio State University in 1966.

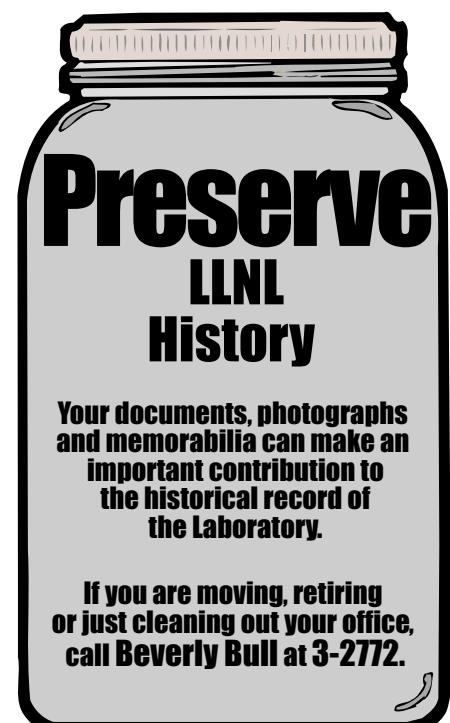
"Science is no longer isolated — today it is having a prominent effect on non-scientific fields like public policy and economics," Cochran said. "It is important that researchers increasingly understand how these diverse fields work with each other in order to perform meaningful science."

Ellis is the executive secretary of the National Science and Technology Council, through which the president coordinates science and technology policy. Ellis also specializes in formulating national policy regarding the ethical conduct of biomedical and behavioral research. A graduate of the University of Michigan and Northwestern University, Ellis earned his bachelor's degree in botany and zoology in 1976 and his Ph.D. in biological sciences in 1980.

Krebs is the director of the newly established California NanoSystems Institute (CNSI). The institute, which is a partnership between UCLA and UC Santa Barbara, focuses on the understanding and design of nanostructures and their integration into complex systems with new properties beyond those already found in nature. Prior to joining CNSI, Krebs was a senior fellow at the Institute for Defense Analysis, where she led studies in R&D management, planning and budgeting. Krebs also served as assistant secretary and director of the Office of Science at the Department of Energy. She received her bachelor's degree and Ph.D. in physics from the Catholic University of America.

"Lab employees need to understand the input federal governmental funding has on the direction of scientific research," Cromwell said. "Students should understand that funding trends could have significant impact on their careers."

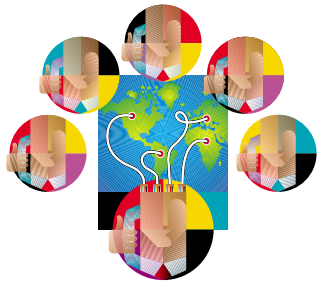
For more information about the panelists or the summer student program at LLNL, go to the student bulletin board website at <http://education.llnl.gov/sbb>.





## Comment period for Web browsers to close Monday

LLNL's Information Architecture project is responsible for developing the standards for hardware and software that conform to the requirements of Laboratory users. Part of the process is to offer proposed standards to the Laboratory community for comments and suggestions.



The latest proposed standard specifies a set of software products that define a baseline of functionality for Web browsers on LLNL desktops. Draft standard IA-1501 is available for employee comment until close of business Monday, July 23. Laboratory users can view the full text of this proposed standard at: <http://ia.llnl.gov/rfc/ia1501/ia1501.html>.

This draft standard references the existing desktop standards, IA-7501 and IA-7502. The hardware and software tables used by these standards have been recently updated and are available at: <http://dag.llnl.gov/default.lasso>. To comment on this proposed standard, click on the comments button on the IA-1501 Website, or e-mail the Information Architecture Office at [ia-rfc@llnl.gov](mailto:ia-rfc@llnl.gov).

## INTERNAL TRANSFER OPPORTUNITIES

| Area | Req. | Classification | Title                         | Organization                        |
|------|------|----------------|-------------------------------|-------------------------------------|
| BS   | 2574 | 102.1          | Senior executive secretary    | Biology & Biotechnology             |
| PM   | 2343 | 142.3          | Principal buyer               | Procurement & Materiel              |
| NF   | 2525 | 150.2          | Sr. resource analyst          | National Ignition Facility Programs |
| CH   | 2552 | 200            | Scientific capability leader  | Chemistry & Materials Science       |
| NA   | 2268 | 200            | Scientists/engineer           | NAI                                 |
| EZ   | 2473 | 249            | Quality assurance mgr.        | Energy & Environment                |
| ME   | 1364 | 249            | Engineer/project leader       | Mechanical Engineering              |
| PE   | 2404 | 338.1          | Facilities planning analyst   | Plant Engineering                   |
| ME   | 2444 | 339.2          | Sr. engineering associate     | Mechanical Engineering              |
| PE   | 2395 | 392            | Sr. supervisor                | Plant Engineering                   |
| ME   | 2445 | 399.2          | Sr. engineering associate     | Mechanical Engineering              |
| CH   | 2474 | 405.3          | Administrative specialist III | Chemistry & Materials Science       |
| AD   | 2506 | 405.4          | Administrative specialist IV  | Administration Directorate          |
| CH   | 2475 | 405.4          | Administrative specialist IV  | Chemistry & Materials Science       |
| DO   | 2590 | 405.4          | Administrative specialist     | Director's Office                   |
| DT   | 2212 | 405.4          | Administrative specialist IV  | Defense & Nuclear Technologies      |
| BS   | 2575 | 450.3          | Administrative specialist III | Biology & Biotechnology             |
| CH   | 2182 | 504.2          | Technologist                  | Chemistry & Materials Science       |
| CH   | 2540 | 540.1          | Technician                    | Chemistry & Materials Science       |

More information on these job postings as well as those at other UC sites and outside organizations is available through the World Wide Web. Go to the Lab's internal home page, click on "Employee Resources," then click on "Jobs."

See complete classified ad listings at <https://www-ais.llnl.gov/newsline/ads/>

## CLASSIFIED ADS



mi., Black w/Tan leather, Bose stereo w/CD changer, power everything, manufact. 50,000mi warranty, very clean, \$25,500 obo 925-449-3855

1968 - Travel trailer, 19 ft. sleeps about five, new tires, good awning, great trailer for hunting or fishing \$1200 obo. 925-449-1123 or 209-832-7655

1986 - Toyota 4Runner, 4 Wheel Drive, Convertible, custom wheels, custom stereo, alarm \$5000 or Best Offer .Please no calls after 8:00 P.M. 925-803-8745

1978 - 12ft cabover camper, bathroom, stove, oven, Refrigerator, all working and in very good shape. Will Sleep 5. \$800/obo 209-892-5734

1998 - Camper Shell- LEER fits Chevy full size short bed 1988-1998 Insulated, Silver / Tinted windows, Excellent condition \$300.00 OBO 925-443-2114

1997 - Ford F150 super cab, long bed w/liner, 3 door, AT, AC, PW, new tires, alarm system. \$15,000 925-447-4711

1983 - Tent Trailer- Viking, sleeps 6, good condition, \$1,500/OBO. Call 209-957-4639 or 925-706-8179

1993 - Jeep Cherokee Country, 4.0L V6, 4WD, AC, PS, CC, PW, PDL, AM/FM/Cass, tow pack, new tires, one owner, 133k miles, Excellent condition. \$6,500. 510-582-5097

1988 - GMC full-size Jimmy 4x4. Great condition, new transmission, new tires, 123K miles. Tow pkg, tinted windows, ps, pb, automatic 350. \$8200. 925-447-6784

1969 - 4WD Chevrolet K-5 Blazer, Great Condition, New 33in. Goodyear All Terr, 454, SM465 Granny Low 4Spd, NP205 T-Case, Fully Convertible Hard Top. \$4k 209-955-1155

1970 - Dodge D100 Pickup. 3 speed manual transmission. 225 engine. Runs good, original owner.

925-454-1422

1994 - \$275 4 by 8 foot utility trailer. Good condition. Light weight. Includes rails, adjustable ramps, upgraded wheels, dirt bike tie downs. 925-449-4739

1993 - Chevy suburban, 4x4, running boards, roof rack, tow package, V/8, two tone silver/black, 101k, exc cond \$12,000 209-869-0633

2001 - Brand new 19 foot Nash travel trailer with bath/shower/ AC/heater/micro/oven/refrig/freezer. Sleeps 4. \$13,900. 925-699-9057

1993 Jeep Wrangler, Blk, Soft top, new oversized tires, 5 sp, 105K miles. 925-833-2527

1996 - Nomad 27.5 ft 5th wheel with 13 ft. slide out. AC, awning, 3 holding tanks, elec-start hot water heater/refrig, pantry, elec jacks. \$17,000. 209-847-8264

1988 - Ford Bronco II, V6, 2.9L, 5 spd, ~132k, AC, AM/FM/Cass, 15 in whl, white ext, blue clth int, good cond, asking \$4000. 925-443-2044

1955 - Older Hunting/Fishing Trailer, 16 ft. single axle, new tires, propane stove, ice box. Make offer. Call after 4pm. 209-835-9469

1992 - Chevy Silverado 1500 extended cab 2WD, 5.7 V8, AT, PW, PDL, PS, CC, tow package, new tires, new trans, 98K miles. Excellent condition. \$9,000 OBO. 925-443-7544

### VACATION RENTALS

Cabo San Lucas, Mexico - Cabo San Lucas, Timeshare, 2 fixed weeks, February and October. Call 510-782-2349 for details.

Kailua-Kona, Hawaii - 2bd, 2 bath condo on Alii Drive, Plan B, special rates for Lab employees. 925-833-6061

Twain Harte - Fully furnished. 2bd 2full bath. Dishwasher, microwave, cable TV, VCR, washer, dryer and more. Close to Pinecrest Lake.

\$150wknd \$300wk. 925-443-2808

World Wide - You can use my time share week to exchange through RCI anytime/anywhere depending on availability. \$700/week 925-449-6048

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, nicely furnished, all amenities, Homeowners park w/Lake, tennis etc. Great for Families, Few Weekends Left, Reserve Now!! 209-599-4644

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

Rent my Timeshare week (8/24-8/31) at Stateline, NV. The Ridge View, overlooks Lake Tahoe at top of Kingbury Grade. Unit sleeps 4. \$500 209-836-1706

HAENA, KAUAI - Private house and/or studio on the scenic north coast near Hanalei Bay - great beaches, hiking, boating and golf. House-\$125/day, studio-\$75/day 831-479-3441

South Lake Tahoe, NV - South Lake Tahoe Vacation Cabin. Sleeps 12. Near Marina, Heavenly, Casinos. 925-449-2112

SEA RANCH - Oceanview home. No smoking. No pets. Adults only. 2BR(KQ)/2BA 1700sqft. Hike. Bike. Whale watch. Kayak. Swim. Tide pool. 925-443-5086

Kihei, Maui - Oceanfront luxury condo w/all amenities. Large pool, bbq, tennis courts, putting green. Excellent location, low LLNL rates. 925-846-8405

### WANTED

Wanted-Dirt Bike gear for 11 year old Helmet, Chest protector, Boots sz 8-9 mens. 925-449-1340

Wanted- Person to help with yardwork, painting, auto repair, odd jobs, weekends or evenings Livermore or Pleasanton 925-447-

7070

Potting wheel in good condition. 925-447-4126

Need 2 tickets for 9/30/01 Giants/Padres game at PacBell park. 209-815-5289

Recumbant exercise bike for disabled person. 510-537-7222

Wanted either a electric refrigerator or a RV refrigerator 10-12 cubic ft. 925-449-1340

Seeking Full Time Office Assistant; entry level position. Great opportunity for someone looking to gain work experience. 925-784-0566

WANTED: Old stereo equipment, stereo consoles, amps, speakers, tubes. 925-443-2954

Honda 50cc or 70cc mini-trail bike. 925-455-8238

Wanted. Inexpensive 35mm Black and White darkroom equipment for

student. Please call. 925-449-5441

Beach house rental in Capitola, Soquel, Rio Del Mar, Aptos or any near by area with beach access from 8-11 to 8-18-01 925-426-8224

CAMPER SHELL to fit 1991 Toyota standard size pickup truck. Pickup bed inside dimensions are 73.5 inches by 57 inches. 510-581-4609

Wanted to rent for months of September and or October vacation trailer to sleep 5. 925-447-3110

Campbells Labels and General Mills BoxTops for Education (10 cent logo) for school programs. S. Hulsey 209-832-1535

Old panty hose/stockings, in any condition, to be used by Eastern Star to make physical therapy balls. 952-606-1972

GIANTS tickets wanted! Weekend games or M-F night games. 510-635-2734

## Guidelines

Newsline is not responsible for any errors contained in the classified ads. It is up to the employee to proofread his or her ad to make sure it contains the correct data, including the phone number.

Employees are reminded that only car- and vanpool ads may contain Lab extensions. E-mail addresses are not allowed.

Due to space limitations, Newsline cannot run ads that are submitted in all capital letters. "Personals" ads are not permitted either.

Employees may submit one ad per category, but may not include the same ad in more than one category.

Ads may only be submitted through the Employee Ads Web Services site <https://www-ais.llnl.gov/newsline/ads/>



## THE BACK PAGE

### ASCI

*Continued from page 1*

of Energy Spencer Abraham. "This independent ranking confirms our technology leadership to support our nuclear stockpile. Many skeptics labeled this technology advancement 'impossible' just five years ago."

Both Livermore machines use thousands of IBM RS/6000 processors — commercial, off-the-shelf technology — wired together in complex ways to solve problems that would have taken tens-of-thousands of years to complete on computers produced just a few years ago. And both machines, when delivered, exceeded procurement contract specifications.

Originally ordered in July 1996 for \$93 million, the Blue Pacific computer performs 3.9 trillion operations per second.

Just one year ago, 28 moving vans delivered the top-ranked White machine to its Livermore home in a climate-controlled room the size of two basketball courts. The \$110 million machine, computes at 12.3 trillion operations per second — approaching four times Blue Pacific's speed. ASCI White uses 8,192 IBM processors and a rotating storage memory equivalent to 300,000,000 books. That's a far cry from its original predecessor, a room-sized 1952 Univac from Remington Rand, with a memory equivalent of only 1,000 words, or less than four text pages.

"The remarkable ASCI successes to date not only convert skeptics, but provide the foundation

for the next phase in our race to build the Tera-Scale Facility and achieve 100-trillion calculations per second by 2005. We're not yet halfway there. And the slope toward this goal is as steep as the one we've just climbed. But I feel certain that if provided the resources we can do it," said Livermore ASCI program leader David Nowak.

Two other ASCI computers ranked within the top six: Sandia National Laboratories' ASCI Red, by Intel, placed number three; and Los Alamos National Laboratory's ASCI Blue Mountain, by SGI, ranked number six. The number two position went to Lawrence Berkeley National Laboratory's IBM NERSC supercomputer, bringing to five the total number of Department of Energy machines among the top six.

The fastest performance while processing the



FILE PHOTO

ASCI Blue Pacific is the world's fourth fastest supercomputer, one of two Lab machines named in the recently released Top500 list.

Linpack timing code is used in ranking the computers. The TOP500 list has been updated twice yearly since June 1993. The full list can be viewed at [www.top500.org](http://www.top500.org).

### DDLs

*Continued from page 1*

Physics Department at Case Western Reserve University. His wide research interests include the interface between elementary particle physics and cosmology, where his studies include the early universe, the nature of dark matter, general relativity and neutrino astrophysics.

Krauss has previously appeared at the Lab to discuss "The Physics of Star Trek," based on his best-selling book of the same name. His DDLs lecture will pay tribute to Lawrence, for whom both Livermore and Lawrence Berkeley labs are named. Lawrence was born on Aug. 8, 1901 and died Aug. 27, 1958. The Krauss talk kicks off a number of centennial events that will take place in coming months at the Lab, including a special display at the Visitors Center in August. More details will appear in future editions



FILE PHOTO

Lawrence Krauss

of *Newsline*.

Krauss is the recipient of numerous awards for his research, including the Gravity Research Foundation First Prize Award (1984), and the Presidential Investigator Award (1986), and is a fellow of the American Physical Society. He received his Ph.D. in Physics from the Massachusetts Institute of Technology in 1982, then joined the Harvard Society of Fellows. In 1985 he joined the faculty of Physics at Yale University, and moved to take his current appointment in 1993.

Krauss wrote more than 180 scientific publications,

as well as numerous popular articles on physics and astronomy. In addition, Krauss is the author of

six popular books, among them "Atom: An Odyssey from the Big Bang to Life on Earth... and Beyond," "Fear of Physics" and two titles discussing the physics of "Star Trek."

In 2000, Krauss was awarded the American Association for the Advancement of Science's Award for the Public Understanding of Science and Technology, joining previous awardees Carl Sagan and E.O. Wilson. In April, he received the 2001 Julius Edgar Lilienfeld Prize of the American Physical Society for "outstanding contributions to the understanding of the early universe, and extraordinary achievement in communicating the essence of physical science to the general public."

That same month the American Institute of Physics awarded Krauss the 2001 Andrew Gemant Award, given annually to "a person who has made significant contributions to the cultural, artistic, or humanistic dimensions of physics." Previous awardees include Freeman Dyson, Steven Weinberg, and Stephen Hawking.

### PEHRSON

*Continued from page 1*

are still unpredictable. However, his family reports he is showing signs of improvement and has strongly indicated his wish to start therapy.

"Dave has always sought ways to help others make their contributions have more impact at the Lab," said Engineering AD

Spiros Dimolitsas. "For this reason Dave was liked and respected by everyone, and we are all looking forward to as speedy a recovery as possible."

Pehrson's family members wish to express their thanks to his colleagues for their many supportive cards, letters and e-mails. Well-wishers may mail greetings to the Pehrson home at 643 Via Del Sol, Livermore, 94550.

### Lab to develop framework to resolve diversity issues

Gen. John Gordon, head of the National Nuclear Security Administration, has tasked Lawrence Livermore, Los Alamos and Sandia national laboratories with developing an enhanced framework for resolving workforce diversity issues within the NNSA labs. A first application is to address issues specific to the Asian Pacific Islander American (APIA) community. In response to this directive, the labs are developing an APIA Diversity Issues Workshop to be held Aug. 24.

The upcoming workshop will inaugurate a new protocol involving management for developing solutions to systemic workforce issues and concerns. Although the focus of the initial session is on APIA issues, the methodology employed is intended to be a regular means of addressing diversity issues of this type. Look for more details in *NewsOnLine* and upcoming issues of *Newsline*. Additional information is also available from the Affirmative Action and Diversity Program office, 2-9543.



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