

Caltech336

T E S S M T W T F S S M T W

The campus community biweekly

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No love lost here



The "fantastical Spaniard" Armado (played by Caltech alumnus Fred Farina, MS '92) in a fit of pique attacks his page, Mote (senior Teodora Beloreshka), in TACIT's production of Shakespeare's *Love's Labour's Lost*. The play runs through March 9 in Ramo Auditorium.

Joyce Campbell, GPS staffer, passes away Iwan awarded Alquist Medal

Joyce Campbell, a longtime Institute employee, died on February 27 after a battle with cancer. She was 52.

Campbell started at Caltech in 1987 in travel audit and in September 1999 transferred to planetary science. She had been on leave since last June, said Irma Black, her supervisor.

"Having Joyce on the team was like having our own travel specialist," Black said. "We continue to use the procedures she refined. Joyce was also assistant to Professors Ingersoll, Stevenson, and Albee. We are grateful for the support and contributions she made over the years to the planetary science department."

Patti Croke, who worked at the Institute for 23 years, said, "I met Joyce 15 years ago, when she started working at Caltech. As all of her friends would agree, she was a very special human being—always eager to lend a helping hand or sympathetic ear. She had a sharp sense of humor, which could make me laugh for hours."

"We loved her so much and thank her for all of her years of dedication to both travel audit and the Division of Geological and Planetary Sciences. I know that we

see Campbell, page 6

Caltech professor of applied mechanics Wilfred Iwan has been named the 2002 recipient of the California Earthquake Safety Foundation's Alquist Medal.

Iwan, who is also director of Caltech's Earthquake Engineering Research Laboratory, was chosen in honor of "his lifetime of service to the profession of structural engineering and its application to the safety of the people of California and the world." The award was presented February 7 in Long Beach at the annual meeting of the Earthquake Engineering Research Institute.

Iwan, a Caltech alumnus, has been a member of the faculty since 1964. His research interests include the theory of vibrations, the modeling of structural systems, the earthquake response of structures as well as nonstructural components such as piping, and offshore engineering for better seismic design.

In addition, Iwan has been involved in the development of national and international strategies for the deployment of strong-motion earthquake instruments, including real-time monitoring and early-warning systems. He introduced the concept of "drift demand spectrum" as a means of measuring the damage

see Iwan, page 6

Sally Ride festival coming to Caltech

Girls of the world (with a love of science), unite! Girls between the sixth and eighth grades will have a rare opportunity to get together with other aspiring scientists on Saturday, March 23, the day that Sally Ride, the first American woman in space, brings the Sally Ride Science Festival for Girls to Caltech.

The morning's events get a kickoff with a keynote address by Ride, after which the science-related workshops begin. A street fair replete with exhibits and food vendors will cap off the festival.

The hour-long workshops—there are 20 in all—touch on topics ranging from the geology of Antarctica's ocean floor, to the planets in our solar system, to the science and the women behind weather forecasting.

The goal of science festivals like these is to stoke the natural curiosity about science that every girl has. As girls grow older, the proportion of them interested in pursuing science-related careers shrinks dramatically. Ride, who is also a Caltech trustee, aims to retain this interest by providing budding scientists with mentor and peer support.

"The festivals came about because we thought it would be fun and important for girls to know they're not alone in their interests," said Bear Ride, Sally's sister and an organizer of the festival circuit. "The festivals are geared to girls who are already interested in math, science, and technology, but who are reaching that age where often, due to social pressure, they are discouraged from following those interests and dreams."

One such girl is Amber. According to her mother, the sixth-grader from Pasadena's Chandler School is looking forward to the event.

"Although science is not Amber's favorite subject, when she saw the variety of workshops, she got very excited," said Deborah Williams-Hedges, a Caltech staff member in the public relations office. Her eleven-year-old chose to attend the Computer Animaniacs and Crime Lab workshops, both of which touch on Amber's interests.

"Learning should be fun, and kids need to know that science can be interesting and fun, too," Williams-Hedges said. "These seminars will provide an excellent opportunity for girls to explore the world of science and see where their interests lie."

The intriguingly titled workshops include "Hot and Cold: Viewing Earth from Space," "Optical Illusions: Lightwaves," and "Mind, Heart, and Hands—Being a Woman Physician." Several of the presentations will be conducted by Caltech

see Ride, page 2

Caltech author publishes novel

"Once her dying got underway, Anna could not really complain about the way the process moved along." So begins *Anna in the Afterlife*, the latest novel by Caltech lecturer in creative writing Merrill Joan Gerber.

Anna in the Afterlife is a novel about an acerbic, 90-year-old woman ("a tough cookie," as she calls herself) who, upon her death, is finally freed from the restrictions of her mortal life. During the four days between her death and burial, Anna, "infinitely present, never dead, never stupid, and never done with it all," observes the preparations for her own funeral, finds out the true nature of her sister's suicide attempt, and learns of her own sexual abuse by her half-brother. She considers the origins of her bigotry and her reluctant capitulation to romantic and physical love. In her final moments of consciousness, Anna has the last word about her own secrets and crimes before taking the first step into eternity.

"Most of my work comes from the close observation of family life," says Gerber, who has taught at Caltech since 1989. "Of course, life is chaotic, and in fiction, you take control of the material and shape it, redesign it, to give it meaning."

Anna follows the earlier publication of *Anna in Chains*, a book of short stories about Anna as an elderly widow, who first struggles to maintain her independence in the Fairfax area of Los Angeles,

see Gerber, page 6



Major gifts director to join Caltech

June Thames Poust has been appointed the new director of principal and major gifts in Caltech's Office of Development, the organization in charge of the Institute's fund-raising activities. She will join the development team in late March.

"We are pleased that June Poust has decided to come to Caltech," said William Jenkins, executive vice president for administration. "She not only has significant major gift experience, but also recently has been a key leader in a substantial capital campaign. In addition to her campaign experience, June's energy and focus will be a great asset to Caltech."

see Poust, page 6

NewsBriefs



With pomp and circumstance, Pasadena's new Fire Station 34 held its grand opening on February 28. Festivities included a ribbon cutting by Provost Steve Koonin and Councilman Sid Tyler, and tacos—traditional department fare—prepared by retired firefighters Paul Gedigian, 78, and his brother Harry, 79.

Personals

Welcome to Caltech

January

Benjamin Gudlewski, research assistant I, condensed-matter physics, and **John Wendel**, research aide A, chemistry.

February

Charles Anderson, gardener, Physical Plant; **Gillermina Barragan**, lab helper A, biology; **Matthew Brewer**, associate director of business and accounting services, Financial Services; **Martin Burgdorf**, staff scientist, Space Infrared Telescope Facility (SIRTF); **Sandra Castro**, research scientist, Infrared Process and Analysis Center (IPAC); **Judy De La Torre**, department clerk B, basic applied physics; **Silvia Delker**, research assistant I, biology; **Olga Donah**, senior department clerk, Physical Plant; **Rich Fagen**, director of ITS software support services, Information Technology Services; **Donald Ferguson**, financial asset accounting supervisor, Financial Services; **Joel Garcia**, lead cook, Dining Services; **Brian Johnson**, research assistant, engineering; **Mark Larson**, service mechanic, Physical Plant; **Shaunt Mangioglou**, general clerk, Public Relations; **David Mayo**, associate director, Sponsored Research; **Edriss Merchant**, information engineer, biology; **Miguel Ramos**, host, Dining Services; **Paul Rasmussen**, mechanical engineer, Owens Valley Radio Observatory; **Daylyn Shaw**, gardener, Physical Plant; **Ilana Smith**, immigration specialist, Human Resources; **Helene Tolliver**, lab assistant, geology; **San Van**, IT generalist associate, Information Technology Services; **Anneline Van Bentherm-Weil**, project manager, Physical Plant; **Quoc Vu**, senior application developer, Interferometry Science Center; **M. Elizabeth Welsh**, senior department clerk, materials science.

Retirements

Mary Sexton has retired after 15 years at Caltech. She was a departmental assistant in the Division of Chemistry and Chemical Engineering.

Deaths

Robert Harkey, a former safety technician in business services, died on February 5; he was 82. Hired in 1967, he had retired in 1981. He is survived by his wife, Anita.

Frank Ostrander died on January 17; he was 76. A supervisor in biology, he had retired in 1990 after nearly 42 years at Caltech. He is survived by his wife, Mary.

Ervin Ramsay has died. He had retired in 1973, after 10 years at Caltech. He is survived by his wife, Margaret.

Mary Emma Shevlin, a tabulator operator in data processing who had retired in 1983 after more than 20 years at Caltech, died on December 20; she was 80. She is survived by her sons, Robert, Thomas, and Christopher; her daughters, Alice Benson and Mary Emma Jr.; and her sister, Mary O'Boyle.

Tobias Stam, who was a manager in the patent office and assistant to the general counsel, died on January 20; he was 88. Hired in 1965, he had retired in 1983. He is survived by a son, Wayne.

John Willemsen, who worked for Physical Plant from 1961 to 1978, died on January 11; he was 85. He is survived by his wife, Jeannette.

Honors and awards

John Eiler, assistant professor of geochemistry, has been selected by the American Geophysical Union (AGU) to receive the 2002 James B. Macelwane Medal, in recognition of his scientific accomplishments. The medal, which honors significant contributions to the society by outstanding young scientists, will be presented at the AGU's spring or fall meeting.

Media minute

"Film is toast. Carver Mead killed it"

Moore Professor of Engineering and Applied Science, Emeritus, **Carver Mead** was featured in the *New York Times* (February 11) and in *Forbes* magazine (March) for his work on digital photography sensors and how they will make film an endangered species. "Film is toast. Carver Mead killed it," the *Forbes* article says (www.forbes.com/forbes/2002/0318/039.html). Mead's company, Foveon, has made a new type of digital image sensor that is now available in Sigma cameras for \$3,000. The sensor, which could also become available early next year in less expensive, more popular camera brands, has a resolution of 7 million pixels.

Sutherland lauds Koonin findings

John Sutherland, visiting professor of literature at Caltech, wrote in the British newspaper *The Guardian* on March 4 about Provost **Steve Koonin's** lecture last fall on ways to combat bioterrorism. In "The Up-side of Terror," Sutherland writes that though a biological attack is unlikely, Koonin shows how to productively channel "the anxiety generated by the bio-terrorist nightmare" toward creating an effective response system. The article can be found on line at www.guardian.co.uk/Archive/Article/0,4273,4366992,00.html.

Culick to emulate Orville and Wilbur next year

Caltech's Hayman Professor of Mechanical Engineering and professor of jet propulsion **Fred Culick** was featured in a February 17 *Washington Post* article on next year's centennial of the Wright brothers' historic first flight. A member of one of four teams attempting to recreate a working version of the Wrights' Kitty Hawk Flyer, Culick will pilot the West Coast Flyer, which is similarly built of cloth, wood, and wire. "Sure, it's dangerous," Culick is quoted as saying. The article also ran in the *Chicago Tribune* on March 3 and can be viewed at www.chicagotribune.com/classified/automotive/chi-0203030100mar03.story.

Morgan feted in magazine issue

In a special Morgan festschrift, the February 2002 issue of the American Chemical Society's *Environmental Science & Technology* magazine pays homage to **Jim Morgan**, Caltech's Goldberger Professor of Environmental Science and Engineering, Emeritus. Morgan is "widely revered in environmental circles as a scientist, engineer, and teacher extraordinaire," the magazine says, citing him for his "groundbreaking research as well as his achievements as teacher and mentor to a generation of students." The issue is available on line at http://pubs.acs.org/subscribe/journals/esthag-a/36/i03/toc/toc_i03.html.

Caltech cheerleaders in the spotlight

The Caltech Cheer Squad was featured in the *Pasadena Star-News* on February 24. Undergraduate physics major **Erica Nicole Eber** revived the team in 2000 (the original cheerleading squad dissolved years ago along with the football team), hoping for an outlet to the grind of studying and to raise campus spirits. Members practiced on their own for a year and then raised funds for a coach and uniforms. "I think at the beginning everyone laughed at us," Eber said, but the squad was vindicated last March when they took first place in their category at the Cheerleaders of America West Coast Open Championship competition. The 13 cheerleaders, who do their thing at basketball games and other campus events, are also gaining recognition for their Krispy Kreme doughnut fundraisers on campus.

Gray's research inspires new cocktail

Beckman Professor of Chemistry **Harry Gray** recently spoke at a Caltech business and finance team meeting about his efforts to help end the energy crisis, including research on rubipy, a phosphorescent red chemical promising to be a key part of the solution. In honor of Gray's research, the Athenaeum has created its own Rubipy—a drink made of vodka, Cointreau, watermelon schnapps, and melon liqueur. Says **Crystal Thomas**, general manager of the Athenaeum, "On your next visit to the Club, ask ... for the Rubipy Cocktail and see how it glows. We promise this will power and energize you just like the original 'Rubipy.'"

Ride, from page 1

faculty and staff, including Ruddock Professor of Biology Marianne Bronner-Fraser—"Tumble Through Time: The Development of the Brain"—and Visiting Associate in Geophysics Lucy Jones—"Shake, Rattle and Roll: Living with Earthquakes in Southern California." In addition, JPL staff will lead a workshop on the Mars Exploration Rover project.

The festival is one of several community science festivals inaugurated last year by Ride and her company, Imaginary Lines, Inc. They are designed to provide girls across the country the opportunity for contacts with other science-minded girls and with female role models.

"We look for workshop presenters who are respected and known in their fields and who share Sally's interest in keeping girls' interests alive," Bear Ride added. "Different venues provide different opportunities for workshop leaders—Caltech and JPL have been terrific."

In anticipation of the science festival, Ride will make an appearance on Saturday, March 9, at Vroman's Bookstore on Colorado Boulevard to sign copies of her books, including *To Space and Back* and her latest, *The Mystery of Mars*. The signing begins at 11 a.m. To register for the festival and for more information, visit www.sallyridefestivals.com. Information about the Sally Ride Club, an online forum for girls to chat with other girls about science-related topics, is available at www.imaginarylinesinc.com.

Stirring young scientists' curiosity

Did you know that, according to the National Science Foundation, only about 50 percent of Americans know that humans didn't live at the time of the dinosaurs? No wonder, then, that Caltech faculty and researchers saw the need to launch a precollege science outreach program in the mid-1980s, a program that's been going strong ever since.

That effort has now been boosted by a \$1 million Annenberg Foundation grant for two Caltech programs that share a common goal: to improve the kindergarten-through-grade-12 learning experience.

The Caltech Precollege Science Initiative (CAPSI), a K-12 program that collaborates with the Pasadena Unified School District, serves as a national model for science-education reform. Utilizing hands-on experimentation, the elementary-school program is based on the assumption that children are naturally curious and thus are natural scientists. The secondary-school curriculum builds on the same philosophy, getting students involved in substantial hands-on science over time.

"The Annenberg grant will support what is now a critically important effort to improve secondary science education for all children," says Jerry Pine, Caltech professor of physics and a CAPSI founder. "Equal opportunities and an informed citizenry are our goals, now unmet."

Educating teachers is another key factor in the program. Too many elementary-school teachers know little science when they begin their careers, notes Pine. Developing techniques for improving teachers' skills has been a major part of the K-6 CAPSI project and will be critical for further secondary-level reforms to succeed.

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March 11–March 17, 2002

M T W T F S S

Monday, March 11

Aeronautics Seminar
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 1 p.m.—“The Impact of Rocket-Engine Emission on Stratospheric Ozone,” Marty Ross, Aerospace Corporation. Information: www.galcit.caltech.edu/seminars.shtml.

Inorganic-Electrochemistry Seminar
147 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Recognition of Single-Stranded DNA at Telomeres,” Deborah Wuttke, assistant professor, department of chemistry and biochemistry, University of Colorado, Boulder.

Tuesday, March 12

Caltech Library System Presents: Patents
Sherman Fairchild Library, multimedia conference room, noon to 1:30 p.m.—A quick review of the patenting process, searching for patents and patent equivalents, legal status issues, and current awareness techniques. Registration: <http://library.caltech.edu/learning/form.htm>. Open to Caltech community members only.

Carnegie Observatories Colloquium Series
William T. Golden Auditorium, 813 Santa Barbara Street, 4 p.m.—“Structural Parameters of High-Redshift Cluster Galaxies,” Dr. Luc Simard, Herzberg Institute of Astrophysics. Refreshments, 3:30 p.m.

Wednesday, March 13

Mathematical Physics Seminar
351 Sloan, noon—“A Simple Proof of the Equality of Bulk and Edge Hall Conductances,” Gian Michele Graf, associate professor of theoretical physics, ETH Zurich. Information: www.math.caltech.edu/events/mathphys.html.

Bioengineering Seminar
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 3 p.m.—“Designer Gene Networks: *De Novo* Constructs, *In Numero* Descriptions,” Dr. Jeff Hasty, department of biomedical engineering, Boston University. Refreshments, 2:30 p.m. Information: www.be.caltech.edu/seminars.html.

Astronomy Colloquium
155 Arms, Robert Sharp Lecture Hall, 4 p.m.—Topic to be announced. Liese van Zee, assistant professor of astronomy, Indiana University, Bloomington. Information: <http://astro.caltech.edu/~jlc/colloquia.html>.

Environmental Science and Engineering Seminar
142 Keck, 4 p.m.—“Why Do Diatoms Precipitate Silica?,” Professor Francois Morel, department of geosciences, Princeton University. Refreshments, Keck lobby, 3:40 p.m. Information: www.eso.caltech.edu/seminars.html.

NIMH Silvio Conte Research Center for Neuroscience Seminar
24 Beckman Labs, 4 p.m.—“Mechanisms Regulating Synaptic Strength in *C. elegans*,” Josh Kaplan, associate professor of cell and developmental biology, UC Berkeley.

Organic Chemistry Seminar
147 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Can We Communicate with Single Molecules?,” Professor David N. Reinhoudt, University of Twente, the Netherlands.

Thursday, March 14

Ulric B. and Evelyn L. Bray Seminar
25 Baxter, 4 p.m.—“Social Assets,” Andrew Postlewaite, visiting professor of economics, Caltech. Refreshments.

Chemical Engineering Seminar
106 Spalding Lab, Hartley Memorial Seminar Room, 4 p.m.—“When Like Charges Attract: Fluctuation, Condensation, or Depletion?,” Professor Jianzhong Wu, department of chemical and environmental engineering, UC Riverside. Refreshments, 113 Spalding Lab, 3:30 p.m. Information: www.cheme.caltech.edu/seminars/seminars.html.

General Biology Seminar
101 Kerckhoff, 4 p.m.—Topic to be announced. Iain Fraser, senior research fellow in biology, Caltech.

Geoclub Seminar
151 Arms, Buwalda Room, 4 p.m.—Topic to be announced. Craig Manning, associate professor of geology and geochemistry, UCLA. Refreshments, 3:45 p.m. Information: www.gps.caltech.edu.

Physics Research Conference
201 E. Bridge, 4 p.m.—“The World Smells Different to Each Nostril: An fMRI and Psychophysical Study of Human Olfaction,” Noam Sobel, assistant professor, Helen Wills Neuroscience Institute, UC Berkeley. Refreshments, 108 E. Bridge, 3:45 p.m. Information: www.pma.caltech.edu/~physcoll/PhysColl.html.

Von Karman Lecture Series
von Karman Auditorium, JPL, 7 p.m.—“Autonomous Navigation for Urban Robots,” Larry Matthies, supervisor, machine vision group, JPL, and Robert Hogg, staff engineer, machine vision group, JPL. Admission is free. Information: www.jpl.nasa.gov/lecture/.

Friday, March 15

Caltech/JPL Association for Gravitational-Wave Research Seminar Series
155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“LIGO Data Analysis,” Albert Lazzarini, member of the professional staff, LIGO Laboratory, Caltech.

Everhart Lecture Series
Beckman Institute auditorium, 4 p.m.—“Toward the Origin of Gamma-Ray Bursts, the Biggest Bangs in the Universe,” Joshua Bloom, graduate student in astronomy, Caltech. Refreshments, 3:45 p.m.

Inorganic-Organometallics Seminar
151 Crellin, 4 p.m.—“Better Metathesis Catalysts through Mechanistic Analysis,” Jennifer Love, postdoctoral scholar in chemistry, Caltech.

Kellogg Seminar
Lauritsen Library, 4 p.m.—“The Electron-Ion Collider (EIC): A New Microscope to Study Hadron Structure,” Richard Milner, professor of physics and director of the Bates Linear Accelerator Center, MIT.

Von Karman Lecture Series
Pasadena City College, 1570 E. Colorado, the Vosloh Forum (south of Colorado on Bonnie), 7 p.m.—“Autonomous Navigation for Urban Robots,” Larry Matthies, supervisor, machine vision group, JPL, and Robert Hogg, staff engineer, machine vision group, JPL. Admission is free. Information: www.jpl.nasa.gov/lecture/.

Lecture by Stephen Hawking
Beckman Auditorium, 8 p.m.—“Brane New World,” Stephen Hawking, Lucasian Professor of Mathematics, Cambridge. Tickets and information: 395-4652, 1 (888) 2CALTECH, or events@caltech.edu. Individuals with a disability: 395-4688 (voice) or 395-3700 (TDD). Visit Public Events at www.events.caltech.edu.

March 18–24, 2002

M T W T F S S

Monday, March 18

Computation and Neural Systems Seminar

24 Beckman Labs, 4 p.m.—“Image-Based Object Recognition in Man and Machines,” Professor Heinrich H. Bülthoff, director of the Max Planck Institute for Biological Cybernetics, Tübingen, Germany.

Geology and Planetary Sciences Seminar

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“Closing In on Io’s Heat Flow,” John Spencer, astronomer, Lowell Observatory. Information: www.gps.caltech.edu.

Applied and Computational Mathematics Colloquium

101 Guggenheim Lab, Lees-Kubota Lecture Hall, 4:15 p.m.—Topic to be announced. Demetri Terzopoulos, Lucy and Henry Moses Professor of Computer Science and Mathematics, NYU-Courant Institute. Refreshments, 3:45 p.m.

Tuesday, March 19

Carnegie Observatories Colloquium Series

William T. Golden Auditorium, 813 Santa Barbara Street, 4 p.m.—“New Results on the Lowest Luminosity Active Galaxies,” Joseph Shields, associate professor, department of physics and astronomy, Ohio University. Refreshments, 3:30 p.m.

Chemical Physics Seminar

147 Noyes, Sturdivant Lecture Hall, 4 p.m.—Topic to be announced. Tim Zwier, professor of chemistry, Purdue University.

General Biology Seminar

119 Kerckhoff, 4 p.m.—“Signaling Machinery at the Postsynaptic Membrane,” Mary Kennedy, professor of biology, Caltech.

Wednesday, March 20

Mathematical Physics Seminar

351 Sloan, noon—“Inverse Spectral Theory for One-Dimensional Schrödinger Operators,” Christian Remling, Universität Osnabrück. Information: www.math.caltech.edu/events/mathphys.html.

Molecular Mechanisms of Disease Seminar

24 Beckman Labs, 2 p.m.—“Nuclear Receptor Signaling Pathways in Lipid Metabolism and Disease,” Peter Tontonoz, assistant professor, department of pathology and laboratory of medicine, UCLA.

NIHM Silvio Conte Research Center for Neuroscience Seminar

24 Beckman Labs, 4 p.m.—Topic to be announced. Shelley Halpain, associate professor, department of cell biology, Scripps Research Institute.

Thursday, March 21

Special Mechanical Engineering/Solid Mechanics Seminar

206 Thomas, 2 p.m.—“Theoretical Study of the Possibility of Reversible First-Order Transformation between Ferromagnetic and Ferroelectric Phases,” Rick James, professor of aerospace engineering and mechanics, University of Minnesota, Twin Cities. Information: www.me.caltech.edu/seminars.html.

Friday, March 22

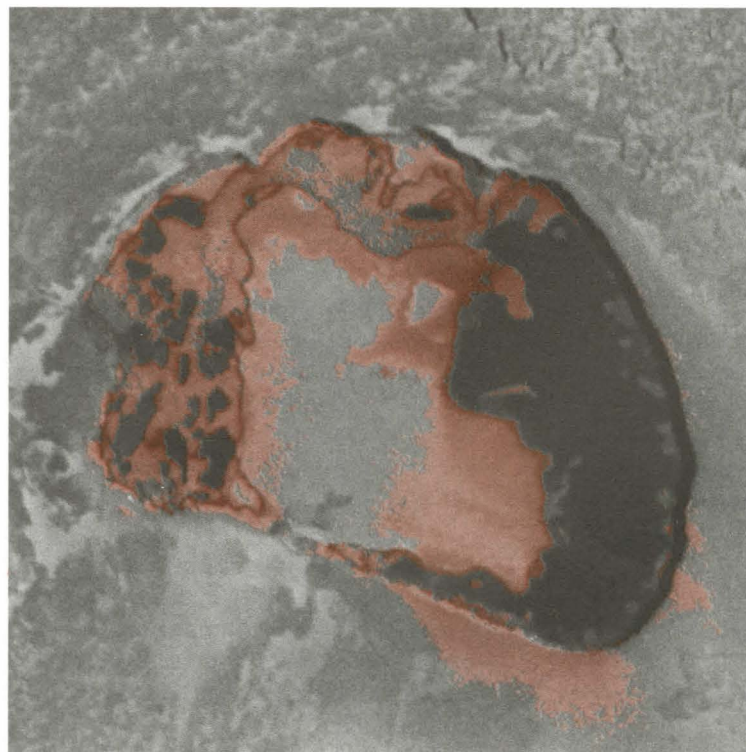
Inorganic-Organometallics Seminar

151 Crellin, 4 p.m.—“The Aqueous Chemistry of Diimine-Supported Alkyl-Platinum Complexes,” Christoph Balzarek, postdoctoral scholar in chemistry, Caltech.

Saturday, March 23

Caltech/MIT Enterprise Forum

Registration and dinner, Chandler Dining Hall, 5 p.m.; program, Baxter Lecture Hall, 7 to 9 p.m.—“Biotech.” Presenter and panelist information pending. Moderator, Dan Kimbell, Christie Parker & Hale, LLP. Registration and information: 395-3916, ircshare@caltech.edu, or www.entforum.caltech.edu.



Jupiter’s moon Io, as imaged from NASA’s Galileo spacecraft, shows the crater Tupan Patera as a hot spot of volcanic activity. The red area in the image includes a small amount of infrared energy. Io’s heat flow will be the topic of the March 18 GPS seminar.

CampusEvents

Monday, March 11

Baby Furniture and Household Equipment Pool

234 S. Catalina, 10 a.m. to 1 p.m.—Loans of kitchen and household necessities and baby furniture are made to members of the Caltech community. Information: 584-9773.

Men's Golf

at University of Redlands, 1 p.m.

Women's Tennis

vs. Vassar College, 3 p.m.

Ballroom Dance Club

Winnett lounge, 7:30 p.m.—Nightclub two-step for beginners, taught by a professional instructor. This is the final class of a five-week series running on Mondays. Fee: \$6 per lesson for Caltech students, \$8 for others. No partner required. Refreshments and a half-hour practice period follow.

Ballroom Dance Mini Party

Winnett lounge, 9 p.m.—Open dancing; make requests or bring your own music. No partner is required. Refreshments. First half-hour coincides with the nightclub two-step practice session.

Tuesday, March 12

Photoshop for Researchers

New Media Classroom, 363 S. Hill Avenue, 10 a.m. to noon—This two-day workshop teaches practical techniques to researchers who use Photoshop: image enhancement, resolution, layout, preparing work for publication, and file formats. The second class is on March 14. Information: <http://twing.caltech.edu/workshops>. Open to Caltech/JPL community members only.

Preschool Playgroup

Tournament Park, 10 a.m. to noon—Song and storytime, crafts and free play for toddlers and preschoolers (from walking to age 4). Information: (323) 550-8075 or jmph-p@pacbell.net.

Women in Engineering, Science, and Technology

Steele House (carriage house), noon—Female students are invited to attend an informal lunch with Caltech professors Fiona Harrison and Mary Kennedy to learn about their individual pathways to success, current research projects, and thoughts on women in science. RSVP westclub@caltech.edu.

Caltech Tai Chi Club

Winnett lounge, 7:15 p.m.—Meets Tuesdays and Fridays weekly. Sessions are free. Information: www.its.caltech.edu/~taichi/.

Amnesty International Letter Writing

Athenaeum Rathskeller, 7:30 p.m.—An informal meeting at which we write letters on human-rights abuses around the world. All are welcome. Information: (818) 354-4461 or lkamp@lively.jpl.nasa.gov.

Caltech Folk-Dancing Club

Dabney Lounge, 7:30 p.m.—Meets every Tuesday until midnight. Drop-ins are welcome. Donations accepted.

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Wednesdays in the Park

Tournament Park, 10 a.m. to noon—Conversation and coffee for parents and caregivers, and playtime and snacks for children. Information: 744-9919 or cdd@its.caltech.edu.

Laboratory Safety 101

Keith Spalding Building, room 118, 3 p.m.—This course is designed to prepare incoming researchers to work in a laboratory at the Institute. Issues include laboratory organization, emergencies, injuries, general laboratory safety, and more. Reservations: 395-6727.

Men's Tennis

vs. University of Mary Hardin-Baylor, 3 p.m.

Ballroom Dance Club

Winnett lounge, 7:30 p.m.—Ceroc for beginners, amateur-taught. This is the final lesson of a five-week series. Fee: \$1 per lesson; free for freshmen or those taking it for PE credit. No partner required. Refreshments and a half-hour practice period follow.

Thursday, March 14

Photoshop for Researchers

New Media Classroom, 363 S. Hill Avenue, 10 a.m. to noon—The second day of a two-day workshop teaching practical techniques to researchers using Photoshop. Information: <http://twing.caltech.edu/workshops>.

Track and Field

Occidental Heptathlon/Decathlon, at Occidental College, 10 a.m.

Women's Water Polo

vs. University of Texas, 4:30 p.m.

Friday, March 15

Track and Field

Occidental Heptathlon/Decathlon, at Occidental College, 10 a.m.

Track and Field

Occidental Distance Carnival, at Occidental College, 3 p.m.

Women's Water Polo

vs. University of Notre Dame, at Cal State San Bernardino, 4 p.m.

Caltech Tai Chi Club

Winnett lounge, 7 p.m.—Meets Tuesdays and Fridays weekly. Sessions are free. Information: www.its.caltech.edu/~taichi/.

Saturday, March 16

Caltech Y Community Service—Union Station

6 to 9 p.m.—Caltech Y volunteers will help prepare and serve meals for homeless men, women, and children at the Union Station Shelter in Pasadena. Information: 395-6163, gregf@caltech.edu, or www.caltechy.org.

Sunday, March 17

Amnesty International Book Discussion Group

Vroman's Museum Collection, 340 S. Lake Avenue, Pasadena, 6:30 p.m.—This month's book is *Unspeakable Acts, Ordinary People: The Dynamics of Torture*, by John Conroy. It is not necessary to have read the book to attend. Information: (818) 354-4461 or lkamp@lively.jpl.nasa.gov.

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Preschool Playgroup

Tournament Park, 10 a.m. to noon—Song and storytime, crafts and free play for toddlers and preschoolers (from walking to age 4). Information: (323) 550-8075 or jmph-p@pacbell.net.

Video Editing and DV Overview

New Media Classroom, 363 S. Hill Avenue, 10 a.m. to noon—A two-day workshop covering the basics of video capture and editing using Adobe Premiere. The second class will be held on Thursday of this week. Information: <http://twing.caltech.edu/workshops>. Open to Caltech/JPL community members only.

Caltech Tai Chi Club

Winnett lounge, 7:15 p.m.—Meets Tuesdays and Fridays weekly. Sessions are free. Information: www.its.caltech.edu/~taichi/.

Caltech Folk-Dancing Club

Dabney Lounge, 7:30 p.m.—Meets every Tuesday until midnight. Drop-ins are welcome. Donations accepted.

Wednesday, March 20

Baby Furniture and Household Equipment Pool

234 S. Catalina, 10 a.m. to 1 p.m.—Loans of kitchen and household necessities and baby furniture are made to members of the Caltech community. Information: 584-9773.

Wednesdays in the Park

Tournament Park, 10 a.m. to noon—Conversation and coffee for parents and caregivers, and playtime and snacks for children. Information: 744-9919 or cdd@its.caltech.edu.

Hazard Communication Training

Keith Spalding Building, room 118, 3 p.m.—This course presents the different aspects of the Institute's hazard communication plan, with concentrated discussions of labeling, material safety data sheets (MSDSs), waste management, and chemical storage. Reservations: 395-6727.

Thursday, March 21

Video Editing and DV Overview

New Media Classroom, 363 S. Hill Avenue, 10 a.m. to noon—The second day of a two-day workshop covering the basics of video capture and editing using Adobe Premiere. Information: <http://twing.caltech.edu/workshops>.

Friday, March 22

Caltech Tai Chi Club

Winnett lounge, 7 p.m.—Meets Tuesdays and Fridays weekly. Sessions are free. Information: www.its.caltech.edu/~taichi/.

Saturday, March 23

Track and Field

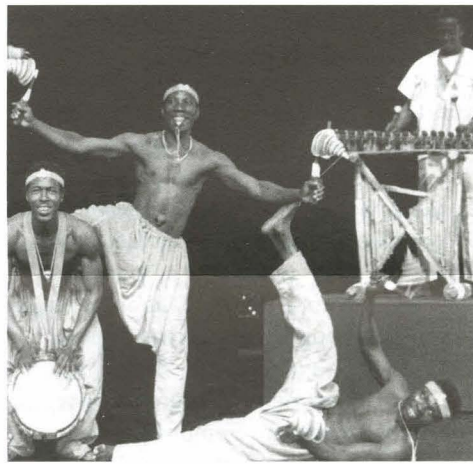
La Verne Invitational, at University of La Verne, 11 a.m.

Folk Music Society Presents Steve Gillette and Cindy Mangsen

Dabney Lounge, 8 p.m.—Gillette and Mangsen use their low-key charm and humor to blend together a diverse set of original and contemporary songs, with some traditional pieces as well. Admission is \$12 for adults and \$4 for children and Caltech students. Tickets and information: 395-4652, 1 (888) 2CALTECH, or events@caltech.edu. Individuals with a disability: 395-4688 (voice) or 395-3700 (TDD). Visit Public Events at www.events.caltech.edu.

Wofa! Percussion and Dance from Guinea, West Africa

Beckman Auditorium, 8 p.m.—Ten young, energetic performers will astound you with their electricity, blend of ancient rituals, and contemporary vision. Wofa, which means "come together" in the Guinean Sousou dialect, is a nonstop explosion of drumming, dancing, and chanting. Tickets and information: 395-4652, 1 (888) 2CALTECH, or events@caltech.edu. Individuals with a disability: 395-4688 (voice) or 395-3700 (TDD). Visit Public Events at www.events.caltech.edu.



Wofa! will dance to their mix of drums and chants on Saturday, March 23, at Beckman Auditorium.

Einstein and Maric in love

The Caltech Women's Center will sponsor a staged reading of "Albert Einstein and Mileva Maric: The Love Letters" on Friday, March 8, at 7 p.m. in the Beckman Institute auditorium. Introduced by Diana Kormos Buchwald, director of the Einstein Papers Project, the reading provides an intriguing glimpse into the life of Einstein and particularly into that of Maric, his first wife and a promising young scientist "who pushed the boundaries of tradition and reminds us of the extraordinary women who have paved the way for all women in science." For more information, contact the Women's Center at ext. 3221 or wcenter@cco.caltech.edu.

Poust, from page 1

Bob O'Rourke, vice president for public relations and interim vice president for development and alumni relations, said, "June Poust brings to the Institute a long and distinguished career in fund-raising in the Chicago area, and her success with a major campaign bodes well for fund-raising efforts at Caltech."

The director of major gifts at the Illinois Institute of Technology since 1998, Poust directed and managed a \$250 million university-wide campaign for facilities and scholarship endowment. She had previously headed her own consulting firm for nonprofit fund-raising and marketing, served as director of development for the Schools of Music and Speech at Northwestern University, and been a development officer at both the Newberry Library and the Field Museum of Natural History.

"It is a privilege to become a member of the Caltech community," Poust said. Noting the beauty of the campus, the quality of the student body, and the outstanding reputation of the Institute's faculty, she added that she is "looking forward to advancing the mission of Caltech at this important time in its history."

Iwan, from page 1

potential of strong earthquake ground motions, and has worked toward improving both seismic instrument design and the interpretation of data.

He has been involved with the California Seismic Safety Commission in developing a comprehensive earthquake risk-reduction plan for California.

Iwan has served on a number of commissions and boards, including the National Research Council's Board on Natural Disasters, the evaluation panel of Japan's National Research Institute for Earth Science and Disaster Prevention, the U.S. Department of Energy's New Production Reactors Senior External Events Review Group, the U.S. Nuclear Regulatory Commission's Review Panel for Seismic Criteria for Nuclear Plant Piping Systems, and the Consortium of Universities for Research in Earthquake Engineering, of which he is a director and founding president.

He holds several patents, and is author or coauthor of numerous publications on earthquake engineering and seismology.

Gerber, from page 1

then reluctantly makes the transition to a retirement home, and eventually moves into a nursing home.

"In some ways, I was forced to confront this subject," says Gerber. "My own mother lived in a nursing home for seven years, paralyzed and on a feeding tube, desperate to die. It was an impossible existence for her and a wrenching experience for the family. It made me understand what horrors are visited upon us as we age."

Gerber urges her Caltech students to examine the dynamics of family life in their own search for a subject. "My students don't write 'genre' fiction in class—we don't discuss science fiction or romance or action thrillers," she says. "I urge my students to consider the 'hot spots' in their lives, the issues that interest them in family relationships or their personal friendships or their love affairs—ideas they return to thinking about frequently."

Every family has its peculiarities, Gerber says, and she often suggests to her students that, to find a story, they go home at Thanksgiving and look around the dinner table.

While her fiction class is an elective within the Division of the Humanities and Social Sciences, Gerber says it is well attended, mostly by juniors and seniors. As writers, she says, she finds her students to be bright and perceptive. "Most of them have been focused on science during their entire academic careers, and given the chance to explore other areas of their lives, they find they have a good deal to say."

Anna in the Afterlife is Gerber's seventh novel; others include *King of the World*, which won the Pushcart Press Editors' Book Award for an "important and unusual book of literary distinction," and *The Kingdom of Brooklyn*, winner of the Ribalow Award from *Hadassah Magazine* for "the best English-language book of fiction on a Jewish theme." Her short stories have appeared in *The New Yorker*, *The Atlantic*, *Mademoiselle*, and *Redbook*, and in many literary magazines. Her short story, "I Don't Believe This," won an O. Henry Prize Award in 1986.

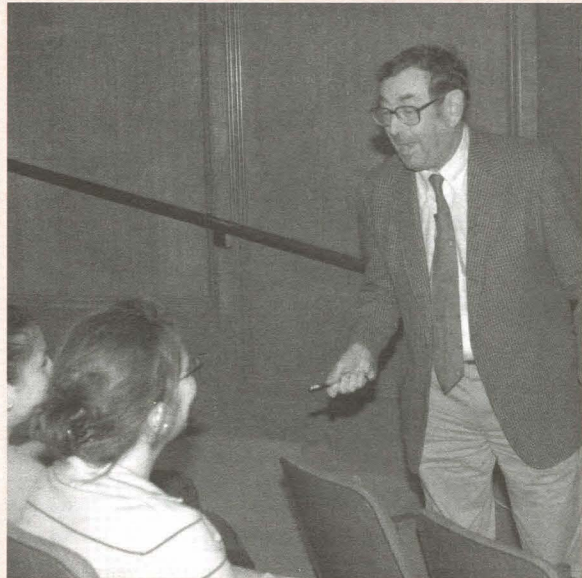
Gerber earned her master's in English from Brandeis University and was awarded a Wallace Stegner Fiction Fellowship to Stanford University. She lives in Sierra Madre with her husband, who recently retired as a professor at Pasadena City College. Gerber has three daughters and two grandsons.

Anna in the Afterlife was published in January by Syracuse University Press. The author can be reached at mjgerber@caltech.edu or via her Web page at www.its.caltech.edu/~mjgerber.

NewsExtras



Professor of Astronomy Richard Ellis, left, describes the spiral galaxy Messier 51 to Jeff Bezos, CEO of Amazon.com and the new Blue Operations, LLC, a company interested in the commercialization of space. Caltech's Office of Corporate Relations hosted Bezos's recent visit and presented him with the picture as a gift.



Beckman Professor of Chemistry Harry Gray discussed alternative fuel sources with high school and junior college students in the second Congressional Science Scholar Forum in February. Sponsored by Congressman Adam Schiff and Caltech, Gray's talk will air on Charter Communications' Channel 25 (Burbank, Glendale, La Canada, La Crescenta) on March 16, 23, and 30 at 2 p.m. and 8 p.m. and on March 17, 24, and 31 at 2:30 p.m. Air times for Channel 56 (Pasadena, Alhambra, San Gabriel) will be forthcoming.

CAPSI, from page 2

The Chemistry Animation Project (CAP) is similar to CAPSI in aiming to revolutionize the way students learn. "We're trying to stimulate the thoughts and curiosity of teenagers," says project director Nate Lewis, a Caltech professor of chemistry who began CAP in 1992.

Lewis's idea was to take the artistry and technology of Hollywood movie special effects and apply them to teaching science. Using teams of students, faculty, and outside film professionals, the project has produced eight animated 3-D instructional units to help students visualize concepts in chemistry and biochemistry. One unit, for instance, features colorful animations of molecules carrying out the processes that underlie health and disease. The Annenberg grant will help CAP produce seven more videos.

"Why write a textbook when you can do something really unique?" asks Lewis. "I've had many students who were capable but simply couldn't 'see' what I

was trying to explain to them from the drawings on the board. There was a clear communication gap that I, and most other instructors, had with even basic material of this type. So I decided to do something about it and started CAP."

For more information, visit the CAPSI Web site at www.capsi.caltech.edu.

Campbell, from page 1

will all miss her very much—she touched us all and will continue to touch us."

Campbell is survived by her husband, Colin, of Covina.

Funeral services will take place in Campbell's home state of Ohio, where she will be buried. A memorial service is also being planned for Pasadena, with details to be forthcoming.

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Editor: Daryn Kobata
(626) 395-6240; daryn@caltech.edu
Assistant Editor: Javier Marquez
(626) 395-6624; jmarquez@caltech.edu
Calendar Administrator: Debbie Bradbury
(626) 395-3630; debbieb@caltech.edu
Graphic Artist: Doug Cummings
Photographer: Bob Paz
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California Institute of Technology
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