

# Caltech 336

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

The campus community biweekly  
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## Sally and the future scientists Get ready to take your kids to work



Herb Shoebriidge

Crowds of middle-school girls flocked to Sally Ride's Science Festival for Girls, held by the Caltech trustee and former astronaut on campus March 23.

If you've ever had trouble explaining to your kids what you do all day at work, here's a chance to let them see for themselves.

Caltech employees are invited to bring their children in the 4th through 12th grades to this year's Take Our Children to Work Day, on Thursday, April 25, from 10 a.m. to 2 p.m. "The intent of the program is to introduce our children to the various career opportunities that are available here at Caltech," says Diana Alvarez, the program's coordinator.

Interested parents should fill out a registration form and medical release and mail it to Alvarez at Employee Services, mail code 153-84, by Thursday, April 18. Registration forms can be found online at <http://cit.hr.caltech.edu/HRForms/HumanResourcesforms.htm>, and are also available in the Human Resources Employee Services office at 399 S. Holliston Ave. If you have more than one child, a medical release form must be completed for each one. "The program is limited to 200 children and is on a first-come, first-served basis," Alvarez emphasizes, "so be sure to register before the deadline."

see *Take Our Children*, page 6

## A new look at Caltech student affairs

As Caltech continues the process of finding a new vice president for student affairs, following Christopher Brennen's stepping down, the administration has also taken the opportunity to reevaluate its overall approach to student affairs.

A search committee for the position was formed, which received input from an external advisory committee. The search committee, chaired by Vice Provost David Goodstein, includes professors Roger Blandford, Kim Border, Paul Jennings, Henry Lester, and Kerry Sieh; staff members Kevin Austin, Carolyn Merkel, and Sharon Patterson; faculty and staff member Miriam Feldblum; and undergraduate Martha-Helene Stapleton and graduate student Chip Sumner.

The external committee, comprising student affairs professionals from other institutions and led by Tom Anderson, a former Caltech vice president for institute relations, was charged with providing feedback both on the position and on Caltech student affairs overall. After meeting with Caltech community members in February, the committee issued its findings in a 15-page report.

President David Baltimore has released the report to the Caltech community with the understanding that, viewed as an opinion and not a planning document, the report can be valuable in ongoing student affairs discussions. While he believes the report is limited in its consideration of the role of students—"student self-governance is a great Caltech tradition and was not, to my mind, fully appreciated by the visitors

see *Student affairs*, page 6

## Widnall champions female engineers

What are the factors that can encourage more women to succeed in the engineering fields? Sheila Widnall can give you a list of 10. In fact, she can give you several top-10 lists, from the reasons women belong in engineering to ways to improve engineering education for men and women.

On Tuesday, April 16, Widnall, Institute Professor and professor of aeronautics and astronautics at MIT, will present a lecture called "Digits of Pi: Barriers and Enablers for Women in Engineering." The lecture will begin at 4 p.m. in Ramo Auditorium.

As a woman who received her doctorate from MIT almost 30 years ago, Widnall was a pioneer in an exclusive world dominated by men. As a civilian appointed Secretary of the Air Force, she oversaw all of the organization's affairs, including the issuing of its long-range vision statement. Widnall is internationally known for her work in the fluid dynamics of aircraft turbulence and spiraling airflows. She received the Distinguished Service Award from the National Academy of Engineering in 1993, and was inducted into the Women in Aviation Pioneer Hall of Fame in 1996.

see *Widnall*, page 6

## Prep begins for Oracle upgrade

Beth Moore and David Wertz

Over the last two and a half years, the Administrative Technology Center (ATC), the Office of Financial Services, Human Resources, and many other departments at Caltech have worked to stabilize and enhance the Oracle applications and associated business processes. For the next six months, focus will shift to upgrading Oracle to a new version, 11i. This effort should culminate in the mid-August implementation of the upgrade.

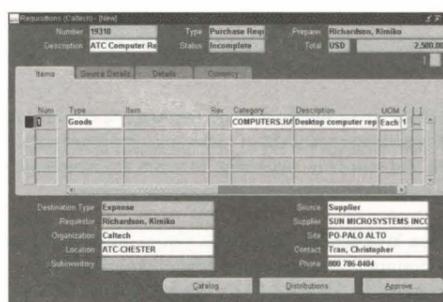
According to David Wertz, director of ATC, regular upgrades were one of the key reasons for choosing Oracle for Caltech's business system. "Upgrades can add functionality, eliminate bugs, and bring us up to date with newer technology. While this upgrade is not anticipated to have nearly the impact of the original implementation, we want the campus to be aware of our plans and potential impacts. It is also important to note that this upgrade is being performed within existing operating budgets," says Wertz.

There are several reasons an upgrade is now being planned. By August, more than three years will have passed since the original implementation of the Oracle system. Three years is a typical life cycle for software (think of the time between Windows 95 and 98, or OS 9 and OS 10).

Eventually, vendors eliminate support for older versions of their software; Caltech reaches that point with our current Oracle software at the end of 2002. Oracle version 10 is now more than five years old. As with any software upgrade, some improvements in the usability of the software are anticipated. The upgrade to 11i may enable Caltech to eventually take advantage of new features after the upgrade, such as workflow and additional Web-based capabilities.

In preparation for the upgrade, work is focused in three areas: testing, code remediation, and transition preparation. The testing effort will, over the coming months, exercise every key function of the

see *Oracle*, page 6



Oracle 11i changes include a new interface with an attached toolbar. A tab feature replaces alternative regions for easier access to underlying information.

## Students, faculty to discuss quality of life

The quality of life of the average undergraduate at Caltech will be among the issues under discussion at this year's Student-Faculty Conference. In the spirit of a frank and open discussion, few things will be taken for granted; even the Honor Code—Caltech's vaunted principle of student conduct—and the academic core curriculum will be examined.

These conferences normally take place every two or three years. But the one scheduled for April 29 will be the first held in five years, a fact that may help explain the number of topics that undergraduates wish to discuss with faculty.

Students want to clarify the curriculum goal of the core curriculum, determine which topics should be taught, and learn what options exist for students pursuing a nonscience career.

see *Conference*, page 6

# NewsBriefs



Herb Shoehridge

Caltech's 10th annual Outreach Program for High School Youth brought more than 100 students to campus in March. The program was sponsored by CSEM and CNSE; the National Science Foundation; the James Irvine Foundation; and Minority Student Affairs.

## Personals

### Welcome to Caltech

#### January

**Jean Mueller**, library clerk B, Palomar Observatory.

#### March

**Biman Bagchi**, visitor, chemistry; **D. Michael Barron**, travel team lead, Financial Services; **Chris Baumgartner**, electronics engineer, geology; **Essam Beshara**, mechanic's aide, Physical Plant; **Frank Hettche** and **Jeung Ku Kang**, postdoctoral scholars, chemistry; **Hyong-Kyu Kim**, postdoctoral scholar, biology; **Yong-Hoon Kim**, postdoctoral scholar, chemistry; **Manuel Lagang**, custodian, Physical Plant; **Michelle Lin**, business systems specialist, Financial Services; **Whee Ky Ma**, postdoctoral scholar, biology; **Michele Milano**, postdoctoral scholar, aeronautics; **Junji Morimoto**, visitor, chemistry; **Cory Olsen**, research aide A, biology; **Jessell Ranilla**, senior legal secretary, general counsel's office; **Ertan Salik**, postdoctoral scholar, JPL's tracking systems and applications section; **Javier Palacios Sandoval**, painter, Physical Plant; **Richard Screeton**, waiter, Athenaeum; **Maria Sdrolias**, visitor, geophysics; **Zongping Shao**, postdoctoral scholar, materials science; **Hiroshi Taiko**, visitor, chemistry; **Lynn Theriault**, senior staff, audit/compliance, Audit Services; **Efrain Torres**, custodian, Auxiliary and Business Services; **Mario Vazquez**, bus person I, Athenaeum; **Shannon Witherow**, assistant lab technician, biology; **Loreta Young**, administrative aide, geology.

**Jennifer McGregor** officially joined Development and Alumni Relations—where she had been working on a temporary basis—as a senior department assistant. She had served in a variety of temporary positions around the campus for nearly two years, and prior to coming to Caltech was an administrative assistant at Lawry's Foods, working with the director of marketing and several brand managers for the West Coast.

**Kathy Rojas** started work with Development and Alumni Relations as manager of development records. She received her BA from Occidental College in 1998, and while a student there worked as a public-relations intern and Web editor. She joined Oxy's development office in 1999 as assistant director of advancement services, and left in 2001 to work as a professional development trainer for Futurekids, Inc., a company that teaches computer basics to novices.

#### April

**Chris Blake** has been appointed associate director of development research in the New York office of Development and Alumni Relations, effective April 8. He had been director of development research at Columbia University Law School since 1995, and prior to that he was a prospect researcher at UC Berkeley. He received his BA from the State University of New York in 1987.

**Evelyn Cederbaum** has joined the Provost's Office as special assistant for facilities, effective April 1. Replacing **Jerry Burk**, who retired on February 15, she comes to the Institute with over 20 years of experience in facilities planning, design, and construction; strategic planning; and operations management. Vice president for facilities planning and design at Comerica Bank since 1999, she had previously held planning and administration positions at Cal State Northridge and UCLA. She received her MBA from Universidad Nacional Autónoma de México.

### New positions

**Michael Alvarez**, associate professor of political science, has been appointed professor of political science, effective April 1. He joined Caltech as an assistant professor in 1992 after receiving his PhD from Duke University; he received his BA from Carleton College in 1986.

**Don Anderson** became Eleanor and John R. McMillan Professor of Geophysics, Emeritus, on January 21. After receiving his BS from Rensselaer Polytechnic Institute in 1955, he received his PhD from Caltech in 1962, becoming a research fellow here that same year. He became full professor in 1968 and McMillan Professor in 1989, and he served as director of the Seismo Lab from 1967 to 1989. He received the Crafoord Prize in geosciences in 1998.

**Margaret Vinci** has been appointed manager of the Office of Earthquake Programs at Caltech. She has been a member of the Seismo Lab since 1992, first working in geophysics and then with Earthquake Programs as an administrative aide. As manager, she will be the point of contact for all Earthquake Research Affiliates members regarding affiliates activities and CUBE (Caltech-USGS Broadcast of Earthquakes) Program information.

### Deaths

**Nicolaas Leyssius**, a former custodian for Physical Plant, died on February 22; he was 79. Hired in 1981, he had retired in 1989. He is survived by his wife, Anna.

**Frank McLane**, a carpenter for Physical Plant who had retired in 1998 after nearly 20 years at Caltech, died on January 17; he was 69. He is survived by his wife, Sharon.

**Elmer Szombathy** died on February 4; he was 80. A precision machinist in mechanical engineering, he had retired in 1988 after 18 years at Caltech. He is survived by two sons, Steven and Robert.

**Elsa Titchenell**, who was a senior administrative secretary in astrophysics, died on February 10; she was 86. Hired in 1973, she had retired in 1980. She is survived by a son, Denis.

**Richard Tuttle**, a painter for Physical Plant from 1986 to 1999, died on March 7; he was 67. He is survived by his wife, Beatrice.

## Honors and awards

**Robert Grubbs**, Atkins Professor of Chemistry, has been selected by the American Chemical Society to receive the 2002 Arthur C. Cope Award, which is sponsored by the Arthur C. Cope Fund.

**Richard Ellis** has been named the Steele Family Professor of Astronomy; this title replaces that of professor of astronomy. A Fellow of the Royal Society, Ellis has been a professor at Caltech since 1999 and the director of Palomar Observatory since 2000.

**Mary Kennedy** has been named the Allen and Lenabelle Davis Professor of Biology; this title replaces that of professor of biology. Kennedy has been a member of Caltech's faculty since 1981, when she joined the Institute as an assistant professor.

**Shrinivas Kulkarni**, MacArthur Professor of Astronomy and Planetary Science, will deliver the 2003 Salpeter Lecture at Cornell University. The lectureship series was established in 1998 to honor Professor Edwin Salpeter.

**Andrew Lange**, Goldberger Professor of Physics, has been chosen by the Manne Siegbahn Institute in Stockholm, Sweden, to deliver its annual Manne Siegbahn Memorial Lecture.

**David MacMillan**, associate professor of chemistry, was selected by AstraZeneca Pharmaceuticals as a recipient of the 2001 AstraZeneca Excellence in Chemistry Award. This award recognizes the accomplishments and potential of young academics in the areas of organic, bioorganic, and medicinal chemistry. In addition, he was chosen by the Pfizer Global Research and Development Academic and Industrial Relations Committee as a recipient of the 2001 Pfizer Award for Creativity in Organic Chemistry.

**Carver Mead**, Moore Professor of Engineering and Applied Science, Emeritus, was awarded Carnegie Mellon University's Dickson Prize in Science at a ceremony on March 19 at Carnegie Mellon, which included his delivering a lecture, "The Coming Revolution in Photography," as well as receiving the \$47,000 prize. Internationally known as a pioneer inventor and designer in the field of microelectronics, Mead has founded several companies, including Foveon, Inc., which is responsible for introducing the first digital full-color image sensor. The Dickson Prize in Science is awarded annually and honors the individual judged by Carnegie Mellon as having made outstanding contributions to science.

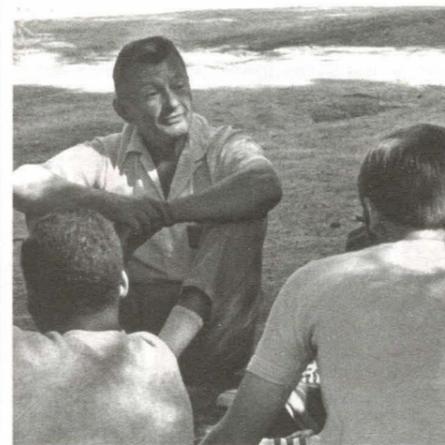
**John Preskill** has been named the John D. MacArthur Professor of Theoretical Physics; this title replaces that of professor of theoretical physics. Preskill has been a member of Caltech's faculty since 1983, when he joined the Institute as an associate professor.

**John Seinfeld**, Nohl Professor and professor of chemical engineering, will receive an honorary doctor of science and technology degree from Carnegie Mellon University.

**P. P. Vaidyanathan**, professor of electrical engineering, was selected by the Institute of Electrical and Electronics Engineers Signal Processing Society to receive the 2001 Technical Achievement Award. This award honors a person who, over a period of years, has made outstanding technical contributions to theory and/or practice in technical areas within the scope of the society.

## Caltech women feted

Caltech's **Sossina Haile**, associate professor of materials science, and **Denise Nelson Nash**, director of public events, along with seven other women, were honored at a lunch on March 27 at the Twin Palms Restaurant in Pasadena by Congressman Adam Schiff, who recognized the women for having "played a critical role in improving the quality of life" in the 27th District and having "made a difference in our community in a significant manner." The women were chosen from a large group of nominees, all of them dedicated community advocates, and Schiff took the opportunity to hear their "thoughts and ideas about how the federal government can play a role in enhancing the neighborhood services and programs available to the residents of the 27th Congressional District."



Lyman Bonner with students, circa 1969.

## Bonner passes away

Lyman Bonner, a rocket propellant expert and Caltech administrator, died Friday, March 22. He was 89.

Born in Kingston, Ontario, he was the second of seven children, four of whom would receive their PhDs from Caltech. After earning a BA in chemistry at the University of Utah in 1932, he entered the Institute as a graduate student and received his PhD in chemistry in 1935.

Bonner was a National Research Council fellow at Princeton University from 1935 to 1937, an instructor and assistant professor at Duke University from 1937 to 1945, and an administrator at Hercules Inc. from 1945 to 1965.

He was an expert in rocket-propellant design and development, interior ballistics, spectroscopy, and molecular structure. At Hercules Inc. he was technical director of the Allegany Ballistics Laboratory from 1945 to 1955, and was director of development in the explosives and chemical-propulsion department from 1955 to 1965. During World War II, he received the Navy's highest civilian honor, the Distinguished Public Service Award, for developing new propellants for rockets and guided missiles.

Bonner came to Caltech in 1965 as director of foundation relations, and in 1966 was named an associate in chemistry. He also served as assistant to the president from 1967 to 1969, as registrar from 1977 to 1989, and as administrator for student affairs from 1980 to 1984.

He is survived by his wife, Jacqueline Bonner of Pasadena, a former editor of Caltech's *Engineering and Science* magazine; three children; five grandchildren; and four great-grandchildren. A memorial service will take place at 3 p.m. on Saturday, April 6, at Villa Gardens, 842 East Villa Street (east of Lake Avenue), fifth floor, Pasadena.

## Davidson memorial to be held

A memorial service for Norman Davidson, Caltech's Chandler Professor of Chemical Biology, Emeritus, will be held on Saturday, April 13, at noon at the Athenaeum. Davidson, a faculty member since 1946, died on February 14 at the age of 85. Caltech provost Steve Koonin called him "a major figure in both chemistry and biology for more than half a century, and one of the people who helped bring the two together, not just at Caltech, but in the subject as a whole." Davidson is survived by his wife, Annemarie Davidson; four children; and eight grandchildren.

# April 8–14, 2002

M T W T F S S

## Monday, April 8

### Aeronautics Seminar

101 Guggenheim Lab, Lees-Kubota Lecture Hall, 1 p.m.—“Current and Future NASA and Air Force Space Access Development,” Tom Presdorf, Air Force Research Laboratories, Wright-Patterson AFB. Information: [www.galcit.caltech.edu/seminars.shtml](http://www.galcit.caltech.edu/seminars.shtml).

### Biophysics Seminar

153 Noyes, Sturdivant Lecture Hall, 2 p.m.—Topic to be announced. Carlos J. Bustamante, Howard Hughes Medical Institute Professor of Biochemistry and Molecular Biology, UC Berkeley. Refreshments, 1:45 p.m.

### William Bennett Munro Memorial Seminar

Beckman Institute auditorium, 2 to 4 p.m.—“Consciousness Viewed in the Light of Human Cognitive Prehistory,” Professor Merlin Donald, department of psychology, Queens University, Canada, and Center for Advanced Studies in the Behavioral Sciences, Stanford University.

### General Biology Seminar

119 Kerckhoff, 4 p.m.—“Patterning of the Mouse Neural Tube: New Insights from Forward Genetics,” Jonathan Eggenschwiler, research fellow, molecular biology program, Memorial Sloan-Kettering Cancer Center.

### Geology and Planetary Sciences Seminar

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“Sediments at the Top of Earth’s Core,” Bruce A. Buffett, associate professor, department of earth and ocean sciences, University of British Columbia. Information: [www.gps.caltech.edu](http://www.gps.caltech.edu).

### William Bennett Munro Memorial Seminar

237 Baxter, 4 p.m.—“From Z to Z: Color and Character from Zeluco to the Zoyara,” Professor Julie Ellison, department of English, and Office of the Vice President for Research, University of Michigan, Ann Arbor. Refreshments.

### Solid State Sciences Seminar Series (S^5)

102 Steele, 4 p.m.—“Organic Electronic Materials and Devices,” Dr. Darryl Smith, Los Alamos National Laboratory. Refreshments, Watson lobby, 3:45 p.m. Information: [www.its.caltech.edu/~yehgroup/s5/](http://www.its.caltech.edu/~yehgroup/s5/).

### Applied and Computational Mathematics Colloquium

101 Guggenheim Lab, Lees-Kubota Lecture Hall, 4:15 p.m.—“Mathematics of Visual Perception: Color Vision,” Joseph B. Keller, Terman Professor of Mathematics and Professor of Mechanical Engineering, Emeritus, Stanford University. Refreshments 3:45 p.m.

### Mathematics Colloquium

151 Sloan, 4:15 p.m.—“Characterization of Orthogonal Polynomials (From Budapest to Pasadena),” Professor Paul Nevai, department of mathematics, Ohio State University. Information: [www.math.caltech.edu/events/colloq.html](http://www.math.caltech.edu/events/colloq.html).

## Tuesday, April 9

### Caltech Library System Presents: Web of Science for Science and Engineering

Sherman Fairchild Library, multimedia conference room, noon to 1:30 p.m.—Learn tips and tricks for searching Web of Science databases more effectively. 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.—“Hipparcos and the Solar Neighborhood: The Thickness of the Galactic Disk, the Local Bubble, and Mass Extinctions,” Dr. Jesús Maíz-Apellániz, Space Telescope Science Institute. Refreshments, 3:30 p.m.

## Wednesday, April 10

### Mathematical Physics Seminar

351 Sloan, noon—“Orthogonal Polynomials and Christoffel Functions,” Professor Paul Nevai, department of mathematics, Ohio State University. Information: [www.math.caltech.edu/events/mathphys.html](http://www.math.caltech.edu/events/mathphys.html).

### Bioengineering Seminar

101 Guggenheim Lab, Lees-Kubota Lecture Hall, 3 p.m.—Topic to be announced. Carlo Montemagno, associate professor, department of biological and environmental engineering, Cornell University. Refreshments, 2:30 p.m. Information: [www.be.caltech.edu/seminars.html](http://www.be.caltech.edu/seminars.html).

### Astronomy Colloquium

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“Old White Dwarfs in the Disk, Halo, and Globular Clusters,” Brad Hansen, Hubble Fellow, department of astronomy, UCLA. Information: <http://astro.caltech.edu/~jlc/colloquia.html>.

### Environmental Science and Engineering Seminar

142 Keck, 4 p.m.—“Carbon Cycle Update,” Dr. Christopher Field, department of global ecology, Carnegie Institution of Washington. Refreshments, Keck lobby, 3:40 p.m. Information: [www.ese.caltech.edu/seminars.html](http://www.ese.caltech.edu/seminars.html).

### Neurobiology Seminar

24 Beckman Labs, 4 p.m.—“Arealization of the Neocortex: Genetic and Epigenetic Contributions to the Phenotype,” Professor Leah Krubitzer, Center for Neuroscience, UC Davis.

## Thursday, April 11

### Civil Engineering Seminar

206 Thomas, 4 p.m.—“Improving Loss Estimation for Woodframe Buildings,” Keith Porter, senior research fellow in civil engineering, Caltech. Refreshments, 210 Thomas, 3:45 p.m.

### Physics Research Conference

201 E. Bridge, 4 p.m.—“New Life for the Oldest Geochronometer: Timing of Mountain Range Formation,” Kenneth Farley, professor of geochemistry, Caltech. Refreshments, 108 E. Bridge, 3:45 p.m. Information: [www.pma.caltech.edu/~physcoll/PhysColl.html](http://www.pma.caltech.edu/~physcoll/PhysColl.html).

## Friday, April 12

### Inorganic-Organometallics Seminar

151 Crellin, 4 p.m.—“A Cyclometallated Resting State for a Reactive Molybdenum Amide: Favorable Consequences of  $\beta$ -Hydrogen Elimination Including Reductive Cleavage, Coupling, and Complexation,” Yi-Chou Tsai, postdoctoral scholar in chemistry, Caltech.

### LIGO Science Seminar

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—Topic to be announced. Phil Willems, LIGO Laboratory, Caltech.



Zahra Bahrami stars in Majid Majidi's *Baran*.

## Afghanistan course open to campus community

A spring quarter undergraduate course focusing on Afghanistan will open its class meetings to interested members of the Caltech community. Taught by Professor of History Robert Rosenstone, the course will feature several guest specialists, as well as dramatic and documentary films depicting the country's culture and recent history.

Topics to be covered include the ancient art of the region, the formation of modern Afghanistan, Islam and sharia law, the Soviet invasion, the Taliban, Afghan family and tribal structure, the role of women past and present, and the current state and future of the country. Among the guest speakers will be Dr. Khalil Hashemeyam, former professor at Kabul University; Galal Elkholy, a retired Detroit prosecuting attorney and specialist in Islamic law; economist Mohammed H. Qayoumi, vice president of Cal State Northridge and an adviser to the current government of Afghanistan; and Nahid Massoud, a psychiatric nurse at UCLA's Neuropsychiatric Institute and a specialist on Afghan women and family relations.

Films include the Iranian feature *Baran*, a love story that dramatizes the plight of Afghan refugees; *Jung*, an Italian documentary made shortly before the recent war, showing life and medical conditions behind the lines of the Northern Alliance; and another recent feature about life under the Taliban.

The course, which began April 2, is meeting Tuesday nights at 7:30 p.m., alternately in Baxter 127 or Moore 080 (on weeks in which films will be screened). For more information and a detailed schedule, contact Rosenstone at [rr@hss.caltech.edu](mailto:rr@hss.caltech.edu) or ext. 4069. (Please note that in order to keep the class size manageable, outside attendance is open to members of the Caltech community only.)

# April 15–21, 2002

M T W T F S S

## Monday, April 15

### Thesis Seminar

106 Spalding Lab, Hartley Memorial Seminar Room, 10 a.m.—“Inertial Effects in Suspension Dynamics,” Ganesh Subramanian, graduate student in chemical engineering, Caltech.

### Computation and Neural Systems Seminar

24 Beckman Labs, 4 p.m.—“Direction Selectivity: 1-D and 2-D, 1st- and 2nd-Order Maps,” Professor Margaret Livingstone, department of neurobiology, Harvard Medical School.

### Geology and Planetary Sciences Seminar

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—Topic to be announced. S. George Philander, professor of geosciences, Princeton University. Information: [www.gps.caltech.edu](http://www.gps.caltech.edu).

### Inorganic-Electrochemistry Seminar

147 Noyes, Sturdivant Lecture Hall, 4 p.m.—“The Chemistry of Three-Coordinate Nickel,” Professor Gregory L. Hillhouse, department of chemistry, University of Chicago.

### Leonidas Alaoglu Memorial Lecture in Mathematics

151 Sloan, 4:15 p.m.—“Statistical  $3x + 1$  Problem,” Yakov Sinai, professor of mathematics, Princeton University. Information: [www.math.caltech.edu/events/alaoglu02.html](http://www.math.caltech.edu/events/alaoglu02.html).

## Tuesday, April 16

### Caltech Library System Presents: Endnote for Beginners

Sherman Fairchild Library, multimedia conference room, noon to 1:30 p.m.—Learn what Endnote is and how to use it to create bibliographies within a word-processing document and as a search interface to online databases and catalogs, allowing you to directly export records from them to your computer. Registration: <http://library.caltech.edu/learning/form.htm>. Open to Caltech community members only.

### Ulric B. and Evelyn L. Bray Seminar

25 Baxter, 4 p.m.—“Markets in Transition: Inside the New York Stock Exchange,” William Johnston, senior advisor to the chairman, New York Stock Exchange. Refreshments.

### Caltech Presidential Lecture Series on Achieving Diversity in Science, Math, and Engineering

Ramo Auditorium, 4 p.m.—“Digits of Pi: Barriers and Enablers for Women in Engineering,” Sheila Widnall, Institute Professor and professor of aeronautics and astronautics, MIT. Information: [www.events.caltech.edu/0102/se.020416.shtml](http://www.events.caltech.edu/0102/se.020416.shtml).

### Carnegie Observatories Colloquium Series

William T. Golden Auditorium, 813 Santa Barbara Street, 4 p.m.—“Liquid Mirrors: An Alternative Approach to Large Ground-Based Telescopes,” Professor Paul Hickson, department of physics and astronomy, University of British Columbia. Refreshments, 3:30 p.m.

### General Biology Seminar

119 Kerckhoff, 4 p.m.—“Progress in Understanding *Drosophila* Rest,” Joan Hendricks, Bower Professor of Small Animal Medicine, department of clinical studies, School of Veterinary Medicine, University of Pennsylvania.

### Caltech/MIT Enterprise Forum

Registration and dinner, Chandler Dining Hall, 5:30 p.m.; program, Baxter Lecture Hall, 7 to 9 p.m.—In “Financing the Southern California New Technology Company in 2002,” a panel of venture capital investors and experienced entrepreneurs will present their perspectives on why venture capitalists are investing in new Los Angeles companies at a virtually glacial rate, and what that means for Los Angeles-based technology companies. Registration and information: 395-3916, [ircshare@caltech.edu](mailto:ircshare@caltech.edu), or [www.entforum.caltech.edu](http://www.entforum.caltech.edu).

## Wednesday, April 17

### Molecular Mechanisms of Disease Seminar

24 Beckman Labs, 2 p.m.—“EMP2, an Organizing Protein for GPI-Linked Lipid Raft Domains,” Jon Braun, professor and chair, department of pathology and laboratory medicine, UCLA School of Medicine.

### Astronomy Colloquium

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“Probing the End of the Cosmic Dark Ages,” Piero Madau, professor of astrophysics, UC Santa Cruz. Information: <http://astro.edu/~jlc/colloquia.html>.

### Environmental Science and Engineering Seminar

142 Keck, 4 p.m.—“Hydroxyl Radical in Sunlit Natural Waters: Sources and Effects,” Bettina M. Voelker, assistant professor, department of civil and environmental engineering, and Ralph M. Parsons Laboratory, MIT. Refreshments, Keck lobby, 3:40 p.m. Information: [www.ese.caltech.edu/seminars.html](http://www.ese.caltech.edu/seminars.html).

### Frontiers in Science Seminar

Pierce College, 6201 Winnetka Avenue, Music Room 3400, Woodland Hills, 4 p.m.—“Neuroscience: From Molecules to Disease,” Henry Lester, Bren Professor of Biology, Caltech. Presented jointly by Caltech and Pierce College. Admission is free. Information: 395-6024 or (818) 703-0826.

### Organic Chemistry Seminar

147 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Exploring New Strategies for Carbohydrate and Alkaloid Synthesis,” Professor David Y. Gin, department of chemistry, University of Illinois at Urbana-Champaign.

## Thursday, April 18

### Ulric B. and Evelyn L. Bray Seminar

25 Baxter, 4 p.m.—Topic to be announced. John de Figueiredo, assistant professor, Sloan School of Management, MIT. Refreshments.

### Carnegie Observatories Colloquium Series

William T. Golden Auditorium, 813 Santa Barbara Street, 4 p.m.—“Globular Clusters and Galaxy Formation,” Duncan Forbes, associate professor, Centre for Astrophysics and Supercomputing, Swinburne University of Technology, Australia. Refreshments, 3:30 p.m.

### Physics Research Conference

201 E. Bridge, 4 p.m.—“Controlling the Motion of Matter with Light: From Single Atoms to Neurons,” Mark Raizen, Regents Chair in Physics and professor of physics, University of Texas at Austin. Refreshments, 108 E. Bridge, 3:45 p.m. Information: [www.pma.caltech.edu/~physcoll/PhysColl.html](http://www.pma.caltech.edu/~physcoll/PhysColl.html).

### Von Karman Lecture Series

JPL, von Karman Auditorium, 7 p.m.—“The Changing Ozone Layer,” Ross Salawitch, research scientist, atmospheric chemistry group, JPL. Admission is free. Information: [www.jpl.nasa.gov/lecture/](http://www.jpl.nasa.gov/lecture/).

## Friday, April 19

### Caltech/JPL Association for Gravitational-Wave Research Seminar Series

155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“The Current Status of the TAMA300 Interferometric Gravitational-Wave Detector,” Seiji Kawamura, visiting associate in physics, LIGO Group, Caltech.

### Inorganic-Organometallics Seminar

151 Crellin, 4 p.m.—“Electrochemical Sensing of DNA Damage and Repair,” Greg Drummond, graduate student in chemistry, Caltech.

### Von Karman Lecture Series

Pasadena City College, 1570 E. Colorado, the Vosloh Forum (south of Colorado on Bonnie), 7 p.m.—“The Changing Ozone Layer,” Ross Salawitch, research scientist, atmospheric chemistry group, JPL. Admission is free. Information: [www.jpl.nasa.gov/lecture/](http://www.jpl.nasa.gov/lecture/).

## Dealing with change at the NYSE

The April 16 Bray Seminar, “Markets in Transition: Inside the New York Stock Exchange,” will feature Bill Johnston, former president and chief operating officer of the exchange. The lecture will take place in Baxter Hall, Room 25, at 4 p.m., with a reception following.

The NYSE is changing rapidly. More than 90 percent of orders executed at the exchange are entered electronically, but they represent only slightly more than 50 percent of the trading volume. Brokers, independent traders, and specialists face complex issues interacting with each other and with machines in an increasingly complex market. In 2001, all 3,525 listed companies on the NYSE began trading in decimals, and this year, the specialist's limit order book for all stocks was made visible to participants off the floor for the first time. In this seminar, Johnston will provide an in-depth discussion of how the world's largest equity market is adapting to these technological and structural changes.

Johnston stepped down in January after five and a half years as NYSE president and chief operating officer to become senior advisor to its chairman. Prior to joining the exchange, he was senior managing director of LaBranche & Company, one of the largest NYSE specialist firms.

The seminar series is sponsored by the Division of the Humanities and Social Sciences. For seminar information, contact Patricia Hamad at [path@hss.caltech.edu](mailto:path@hss.caltech.edu) or ext. 3586. For more information on Johnston, visit [www.nyse.com/about/presidentbio.html](http://www.nyse.com/about/presidentbio.html).

# CampusEvents

## Monday, April 8

### 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

Cal Lutheran University, at Brookside, 1 p.m.

## Tuesday, April 9

### 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's Tennis

at Biola University, 3 p.m.

### 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. Refreshments. 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.

## Wednesday, April 10

### 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 for children. Information: 744-9919 or cdd@its.caltech.edu.

### FOCAL Spring Membership Luncheon

Athenaeum, 11:30 a.m.—Friends of the Caltech Libraries (FOCAL) presents Patt Morrison, radio and TV personality, writer, political commentator, and feminist, who will give a talk entitled "Not Life on the Mississippi: L.A. and Its Paradoxical River." Her new book, *Rio L.A.: Tales from the Los Angeles River*, will be available for purchase and signing. No-host reception, 11:30; lunch at noon. Information and reservations (by April 5): 395-6411 or mcbride@library.caltech.edu.

### Laboratory Safety 101

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

### Women's Water Polo

at Chapman College, 5 p.m.

## Friday, April 12

### Baseball

at Whittier College, 3 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/.

### Armchair Adventure Series

Beckman Auditorium, 8 p.m.—*Royal England*, narrated by Charles Hartman. 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.

## Saturday, April 13

### Men's Tennis

vs. Whittier College, 9:30 a.m.

### Women's Tennis

at Whittier College, 9:30 a.m.

### Track and Field

SCIAC four-way, at University of Redlands, 10:30 a.m.

### Ethos Percussion Group

Beckman Auditorium, 8 p.m.—The Ethos Percussion Group performs evocative Guatemalan marimba music, high-energy Japanese taiko drumming, and contemporary masterworks by composers such as John Cage and Lou Harrison. 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.

### Folk Music Society Presents Bryan Bowers

Dabney Lounge, 8 p.m.—Bowers is a fine singer and autoharp player whose singing style was taken from the field and railroad workers of his native Virginia. 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 the Folk Music Society at www.cco.caltech.edu/~folkmusi/.

## Sunday, April 14

### Paco A. Lagerstrom Chamber Music Concerts

Beckman Auditorium, 3:30 p.m.—The musicians of the New Hollywood String Quartet will perform quartets by Beethoven, Barber, and Dvorák. 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.

## Monday, April 15

### 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.

## Tuesday, April 16

### 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.

### 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, April 17

### 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 for children. Information: 744-9919 or cdd@its.caltech.edu.

### Laser Safety Orientation

Keith Spalding Building, 11 a.m.—All laser operators and individuals working in areas where there may be exposure to laser radiation from Class 3b or Class 4 lasers are required to attend this training. Class size is limited; please call 395-6727 to reserve a space.

### Hazard Communication Training

118 Keith Spalding Building, 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.

### Women's Water Polo

vs. Chapman College, 7 p.m.

## Friday, April 19

### Track and Field

Pomona-Pitzer Invitational, at Pomona-Pitzer College, 8 a.m.

### Women's Tennis

SCIAC Championships, at Whittier College, 8 a.m.

### Baseball

at Pomona-Pitzer College, 3 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/.

### Hollywood Hills Orchestra

Beckman Auditorium, 8 p.m.—The Hollywood Hills Orchestra, led by pianist and conductor Mac Frampton, presents "Heart and Soul," a nostalgic trip back to the 1950s and its wealth of great love songs. Four singers join the 16-piece orchestra. 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.

## Saturday, April 20

### Women's Tennis

SCIAC Championships, at Whittier College, 8 a.m.

### Women's Water Polo

at Occidental College, 1 p.m.

### Second Annual Caltech Jazz Festival

Dabney Gardens, 2 to 6 p.m.—The festival will feature Washington Rucker and the Jazz Collection, the World Ambience Symphony, and the Caltech Jazz Bands. Admission is free. In case of rain, the event will be held in nearby Ramo Auditorium.

### Caltech Y Community Service—Union Station

6 to 9 p.m.—Caltech Y volunteers will help to 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, April 21

### Falun Dafa Workshop

La Pintoresca Pasadena Public Library, 1355 N. Raymond Avenue, 2 p.m.—This free workshop includes video documentaries explaining what Falun Dafa (also known as Falun Gong) is and why it is persecuted in China, as well as five sets of Falun Gong exercises.

## A healthy affair

Caltech's Health Fair 2002 will be held on Friday, April 19, from 11 a.m. to 2 p.m. on the Winnett quad. The event will include a climbing wall, live music, and lots of giveaways. For more information, please call the Health Center at ext. 6393. The fair is sponsored by Human Resources, Student Affairs, and the Caltech Y.

In conjunction with the health fair, Human Resources Employee Services will sponsor a two-day Red Cross blood drive on Thursday, April 18, and Friday, April 19. The drive will take place both days from 10 a.m. to 4 p.m. in the Winnett lounge. To make an appointment, contact Diana Alvarez at ext. 6001 or diana.alvarez@caltech.edu. Walk-ins are also welcome.

## CEC enrolling for summer camp

The Caltech-JPL Child Educational Center is now accepting applications for its 2002 summer camp, "Exploring Our Natural World." Promising a "high-quality, fun, stimulating, and richly rewarding" experience, the program offers a range of activities including arts and crafts, swimming, science exploration, field trips, and more. The camp takes place from June 24 through August 28 at three locations: the Oak Grove site near JPL; the Caltech site in Pasadena; and Palm Crest Elementary School in La Cañada. Full or part-time schedules are available, and qualifying Caltech and JPL families can apply for tuition assistance. To obtain a brochure and application, or to schedule a site visit, call the CEC at (818) 354-3418 or visit www.ceconline.org.

**Oracle**, from page 1

system multiple times, involving more than 100 testers from various departments. The first of three cycles of testing has recently begun. However, this isn't the first time that Caltech staff members have seen Oracle 11i. The pre-upgrade evaluation included a joint testing of the upgrade process with Oracle Corporation, during which the company hosted a "cleansed" copy of Caltech's database. This "early-and-often" approach to the upgrade has given ATC confidence that it can move forward with an upgrade.

Code remediation is the process by which system enhancements and customizations that work under Oracle 10.7 are modified to work with Oracle 11i. Over a thousand code objects must be evaluated, modified, and tested prior to being delivered for integrated testing. Transition preparation includes many of the steps necessary for a successful and smooth upgrade, such as installing upgraded server hardware, training preparation, and communicating with the Caltech community.

What kind of changes and disruptions can you expect? Upgrades of such complex systems are not without risks and impacts, but mitigating those risks and planning for the impacts is at the core of the current work.

While much work remains to be done and there could be changes yet in our understanding of 11i, the overall user experience should not change much.

- No changes to Discoverer or Webster are required by the 11i upgrade; this should be good news to the largest population of users.

- For "base" Oracle applications users, changes appear to be relatively minor. This category includes most users in central administration, SOS buyers, labor distribution (LD) users, and users of Award and Project Status Inquiry. With the exception of requiring an upgrade to the browser "plug-in" (j-initiator for Windows and MRJ for Mac), changes center on improvements to the applications' look and feel. Examples include an attached toolbar, eliminating the annoyances with the current floating toolbar; a tabbed interface in place of the "alternate regions" list; and yellow background to indicate required fields.

- For Web applications users, changes are mostly cosmetic, though some changes in site navigation are anticipated. Applications in this category include Web Internal Charges, EPAN, Parking Registration, and Web Requisitions.

- Mac users will be glad to know 11i is the first Oracle version in which the Macintosh is officially supported. The news is not all good, as some browser compatibility issues have surfaced for users of both Web and base applications.

Tests will be performed with both OS 9 and OS 10.

- Most other administrative applications, such as P-Card, Famis, and Exeter, are not directly affected by this upgrade. However, an upgrade to the Kronos time-keeping application is anticipated to occur at approximately the same time as 11i. The Kronos upgrade should have minimal impact on users.

The primary impact of the transition to 11i will most likely be the need for a system outage, sometimes referred to as a "dark period." This is a time during which Oracle and some other applications will be unavailable for either data entry or viewing. The implementation team is working to minimize the duration and impact of the outage, but the current estimate is five days—a weekend plus three working days, starting August 16. The Caltech community will be kept updated with information about the outage, affected applications, and transaction workarounds during the outage. "It is important to be up-front about this disruption," says Werntz, "and we appreciate your understanding."

Administrative departments will make every effort to maintain current service levels, though there is a possibility of occasional reductions in service during the months leading up to the 11i upgrade. The Caltech community should rest assured that such changes will be temporary and that critical services will not be impacted.

As the upgrade planning progresses through the next several months, the campus will be kept informed through articles, meetings, e-mail, and the ATC Web site at <http://atc.caltech.edu>. For more information about the upgrade, or if you would like to schedule a question-and-answer session with your department, please contact the CARE help desk at ext. 5555 or [ATCCare@caltech.edu](mailto:ATCCare@caltech.edu).

*Beth Moore oversees the CARE help desk and is the ATC's associate director for support services. David Werntz is director of the ATC and a Caltech alumnus (1986).*

**Take Our Children**, from page 1

Parents who would like their children to "shadow" them on the job before or following the program should obtain their supervisors' approval. Children who are unable to stay with their parents must have other arrangements made, as no child care will be provided before or after the formal program.

Take Our Children to Work Day is sponsored by Human Resources and Public Relations. For more information, contact Alvarez at ext. 6001 or [diana.alvarez@caltech.edu](mailto:diana.alvarez@caltech.edu).

**Student affairs**, from page 1

in their short stay on the campus"—and in its options for the vice president position, Baltimore concurs with a number of its findings.

"The report does emphasize some deficiencies in our present operations and organization that deserve serious attention by the next vice president," he said, noting that its emphasis on evaluation was very appropriate. He also was convinced of the need to make Caltech education a communal task, involving faculty, undergraduate and graduate students, and student affairs: "We need more collaborative interaction and coordination of the various communities, a shared sense that education is everyone's joint responsibility."

The external committee made four recommendations: 1) to hire a full-time professional vice president for student affairs; 2) to create a new position for a dean of undergraduate studies, who would replace the current dean of students and report to the vice president for student affairs and provost; 3) that, on arrival of the new vice president, the Student Affairs Office should begin an extensive self-assessment and planning process; and 4) that the Board of Trustees should create a committee on student life, including student representatives.

Baltimore agreed that a full-time vice president, who fully participates in both the administration and in the national network of student affairs professionals, is needed. Rather than hiring a professional outright, his first choice would be to appoint a Caltech faculty member with the desire and qualifications. Lacking such a person, a professional with an understanding of and commitment to the uniqueness of Caltech student life would be an alternative. The search committee led by Goodstein is now charged with finding that full-time vice president.

A restructuring of student affairs and an expanded role for the dean would also be in order; the dean would remain as a half-time position and, in regard to undergraduate studies, report to the provost. "The expanded role of the dean would relate centrally to the goal of having students flourish, not just survive," Baltimore said. Lastly, he noted that the Board of Trustees does not favor creating a new committee, but has asked for more opportunities to hear directly from students than have traditionally been available.

Baltimore anticipates that a full-time vice president will allow the Institute to increase communication between administration and students, to provide a richer student life, and to move forward with projects such as renovation of student houses and construction of a campus activities center that will benefit many generations of students.

"These are all big goals and it will take a very thoughtful, imaginative and empathetic person to do the job," he said. "The key will be to strengthen Caltech without losing the characteristics that make it such a special place for educating the world's finest students."

*This article is adapted from President Baltimore's letter to the Caltech community in response to the Report of the External Committee on Student Affairs. Caltech community members can access the full letter and report online at <http://pr.caltech.edu/cit/pres/letter.html>.*

**Conference**, from page 1

The efficacy of the Honor Code will be called into question, and avenues to resolve Honor Code issues will be examined. Students also plan to explore ways of building trust between undergrads, graduate students, and faculty.

Other issues to be considered include the number and kind of student activities that exist outside the classroom, from advising and mentoring to opportunities for socializing. Students also want to discuss the gender-specific needs of female students and the support systems that are in place for that group.

Past conferences have led to changes, from the physical—such as getting phones installed in student rooms—to the academic, such as a reduction in the number of units needed to graduate.

**Widnall**, from page 1

The barriers to success that Widnall discusses can range from unconscious attitudes held by some professors, who may convey their discomfort with teaching female engineering students, to crude jokes that male colleagues make about female engineers. Widnall says that such signals make women feel that they are not welcome, and that they are invisible.

Widnall sees other barriers that work against increased numbers of female engineers, such as the way that tests, the math SAT in particular, are used as predictors of academic performance. Widnall cites a study that showed that women perform overwhelmingly better as students than their test scores would indicate. Her influence at MIT has changed the way the admissions office weights the scores when evaluating female applicants. Today, women compose 50 percent of the freshman class.

The Caltech Presidential Lecture Series on Achieving Diversity in Science, Math, and Engineering was established to bring to campus speakers who have had highly successful experiences in promoting women and underrepresented minorities in science and technology.

# Caltech 336

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