Evening wear, space oddities spotted at Odyssey Ball

By Denise Brehm News Office

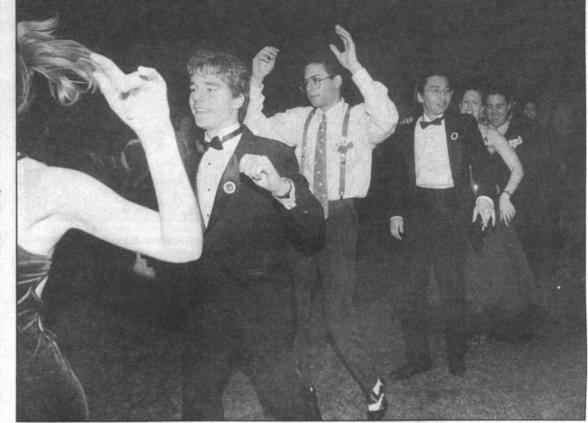
Check out Kresge Oval today. It doesn't look the same as it did Saturday night, when beneath a crescent moon and a very large white tent, 1,500 MIT community members (mostly students) gathered for the Odyssey Ball.

Those elegantly dressed individuals who dared to walk through the misty entrances on either end of the tent saw servers in some pretty dazzling costumes. One woman, dressed in black tights with a metal brassiere and girdle called her outfit "a space oddity." Other Aramark servers wore space suits and helmets or looked like they walked straight off the set of *The Jetsons*.

An 1,800-square-foot parquet dance

floor filled the center portion of the rectangular tent, surrounded by a DJ, a live band and refreshment booths. Space images projected on the walls of the tent and roving spotlights helped keep the atmosphere space-like.

Thirteen-year-old Peter Sheppard and his 14-year-old friend Ben, dressed to the nines in black tux, top hats, white gloves and canes, were handily beat by the computer HAL in a chess game, but seemed undaunted as they headed off to their next encounter. The middle schoolers attended the ball with Peter's mother, Christine Wang (SB 1977, PhD), who works as a senior staff member in Lincoln Lab's **Electro-Optical Materials and Devices** group; his father, Norman Sheppard (SM 1978, PhD); his 16-year-old sister and her friend; and family friend (continued on page 8)



Dancers form a conga line at last weekend's Odyssey Ball.

Photo by Donna Coveney

WEDNESDAY . MAY 2, 2001

MIT hosts event linked to artificial intelligence movie

By Elizabeth A. Thomson News Office

Hollywood was at MIT on Monday as the Artificial Intelligence (AI) Lab hosted a media event that brought together scientists and AI pioneers with some of the filmmakers and talent of A.I., a movie directed by Steven Spielberg to be released next month.

Some 150 national and international reporters attended a panel discussion about the future of artificial intelligence, followed by a tour of several robots and other projects at the AI Lab.

Movie folk on hand for the event included Haley Joel Osment, a star of the upcoming Warner Brothers film and an Academy Award nominee for *The Sixth Sense*. Also attending was Producer Kathleen Kennedy. Mr. Spielberg had other commitments.

The movie focuses on the relationships and challenges involved when a robotic boy (Osment), the first programmed to love, co-exists as a member of a family. After a series of unexpected circumstances leave him without final acceptance by humans or machines, he journeys to discover where he truly belongs.

To kick off Monday afternoon's event, three MIT scientists and an alumnus participated in a panel discussion about artificial intelligence. Dr. Cynthia (continued on page 5)

Student organizer of humanitarian group wins Truman Scholarship

By Robert J. Sales News Office

VOLUME 45 . NUMBER 29

MIT students have enlisted in United trauma Relief (UTR), organized last December by junior Sanjay

Basu to prevent and alleviate suffering from war, poverty and disease around the world. In recognition

of his social commitment exemplified by the project, Mr. Basu has received a Harry S Truman scholarship. The \$30,000 scholarships, awarded to students committed to public service, were presented last week to 80 juniors from 56 institutions of higher learning in the United States.

"This scholarship is the best way I have to be supported in pursuing a future in public service, and to continue studying poverty and health, which isn't always a field people are encouraged to go into," said Mr. Basu, a brain and cognitive sciences major from Naperville, IL.

UTR created a network of 200 college AIDS groups, community organizations and hospital pharmacies to collect unused, unexpired anti-AIDS medications discarded by patients who have changed their regimen to prevent viral resistance. UTR pays to ship the pills to MIT. They are repackaged and sent to a clinic in Haiti by the 10 MIT students who have enlisted in UTR.

Thus far, they have provided Haitian AIDS victims with more than 10,000 pills that otherwise would have been consigned to landfills in the United States. UTR has also provided food and supplies for earthquake victims in India and El Salvador.

"I started the group because I see the problem of polarized opportunity as an extreme injustice," said Mr. Basu, who plans to work with AIDS patients in Thailand this summer. "United Trauma Relief is an av-(continued on page 8)

Panelists explore lessons of Wen Ho Lee case

By Sarah H. Wright News Office

A n April colloquium on "National Security, Civil Rights and Politics: Lessons Learned from the Wen Ho Lee Case" explored the wider implications and deeper roots of the indictment and imprisonment of Dr. Lee, a TaiwaneseAmerican nuclear scientist accused of espionage on behalf of China.

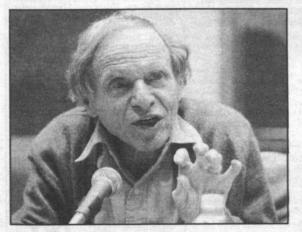
A n April colloquium on "National Security, Civil Rights Dr. Lee, who worked at Los Alamos National Laboratory in New Mexico, was arrested in 1999 and charged with 50 country of michardling continuing information.

Fraternity apologizes for racial remarks

A lpha Tau Omega, an MIT pus H fraternity, publicly apologized Monday to a hip-hop band and the MIT community for a racial remark made Friday afternoon during a rooftop party to a young black woman on the street below.

Ipha Tau Omega, an MIT fraternity, publicly apologized iday to a hip-hop band and the community for a racial retrong the state of the band and the fraternity, and Campus Police quelled the disturbance.





Philip Morrison, Institute Professor emeritus in physics who worked on the Manhattan Project, discusses the jailing of research scientist Wen Ho Lee for alleged espionage. Photo by Donna Coveney with 59 counts of mishandling sensitive information. He spent 278 days in solitary confinement before being released in September 2000 with an apology from presiding US District Judge James A. Parker.

The mission of the five-member panel was to glean educational lessons from the highly publicized case, said Institute Professor Sheila Widnall, moderator. The colloquium topic was of "broad interest to the MIT community," noted Dean for Undergraduate Education Robert P. Redwine. He thanked Roger Hu, a graduate student in electrical engineering and computer science, for his "personal interest and drive" in organizing the event, held in Rm 10-250 and attended by about 150 people.

Panelist Philip Morrison, Institute Professor and professor of physics emeritus, characterized the sight of Wen Ho Lee, a "slight man in shackles," as an image with political purpose whose roots lay in "Cold War I," the 40-year US-USSR standoff that ended in 1986.

"One lesson I have learned is that there is no phenomenon of political life so important as war against a named power so that everything can be named a part of the Cold War. When an espionage story arrives on the front page, there is a deep political reason," he said. "The spy story we saw, with all its baroque not to say barbarous elements, (continued on page 8) The woman, who sings with the Roots, had just been driven to Alpha Tau Omega at 405 Memorial Drive by an ATO brother who was working with the band. The band performed Friday night at Johnson Athletic Center. The president of the fraternity said he barred members of the fraternity from attending the concert.

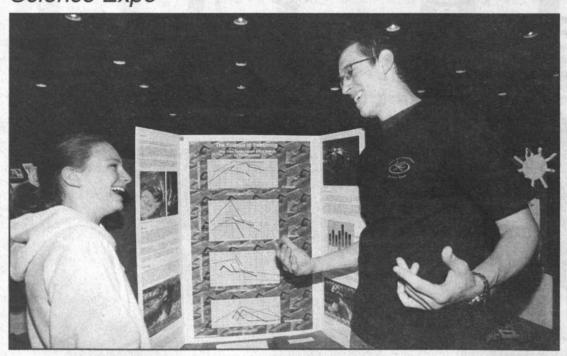
The woman ran into the house and up to the roof, followed by a male member of the band. Words were exchanged and a scuffle ensued between fraternity members and the male band member. He was kicked but not injured in the incident. Cambridge and MIT CamPresident Charles M. Vest sent an e-mail letter to student leaders Saturday, calling it "an ugly and totally inexcusable incident."

The Dean's Office and Campus Police are continuing the investigation of the incident, which occurred at an unauthorized party where alcohol was served.

The fraternity's apology will be published Tuesday in the student newspaper, the Tech. It is addressed to "Members of the MIT Community" and states:

"We the brotherhood of Alpha Tau Omega apologize for the events that occurred on and around our house on the afternoon of Friday, April 27th. To the members of The Roots, our sincerest apologies (continued on page 8)

Science Expo



MIT students mentored Cambridge school children at the MIT/Cambridge Science Expo, held at Johnson Athletics Center last Wednesday. Freshman Jon Varsanik (right), a swim team member, chatted with Francesca Izzo of Graham and Parks School, another swimmer, about her study on the science of swimming. Photo by Donna Coveney

Bates Linear Accelerator plans open house

The MIT Bates Linear Accelerator will be open to the public on Sunday, May 20 from noon-4pm.

Many of the 75 scientific and technical personnel will be on hand to greet visitors and show them around the facility. Visitors will be able to view the large-scale spectrometers OOPS (Out Of Plane Spectrometer) and BLAST (Bates Large Acceptance Spectrometer Toroid) in the South Experimental Hall, visit the Central Control Room and try their hand at a scientific demonstration. More than 250 visitors attended the last open house in 1999

The MIT-Bates facility consists of a 1 GeV (one billion electron volt) pulsed linear accelerator feeding the South Hall Ring and is used in frontier research in electromagnetic physics

The central research focus at Bates

is the study of fundamental properties of the proton, including its magnetism and shape. The new BLAST detector is being built to probe the fundamental properties of matter (see MIT Tech Talk, November 25, 1998).

The facility is located at 21 Manning Ave. in Middleton, off Route 62W. It is easily reached from Routes 128 and 95 and Route 1 north. Comfortable walking shoes are recommended for the open house, and children must be accompanied by an adult. For more information and directions, go to <http://mitbates.mit.edu> or call x3-9200

Student found dead in dorm room Monday

The last time Dr. Shuguang Zhang saw Julie M. Carpenter, they discussed the fellowship she had received to work this summer at the Center for Biomedical Engineering (CBE), where she had been a UROP student since last spring.

"It's a great honor and she was looking forward to it," said Dr. Zhang, co-director of CBE, recalling the brief exchange last Friday.

Ms. Carpenter, 20, a sophomore majoring in chemical engineering, was found dead in her Random Hall dormitory room early Monday morning. The Middlesex County medical examiner was scheduled to perform an autopsy to determine the cause of death. There were no signs of foul play, according to Campus Police.

Dr. Zhang, who has known Ms. Carpenter since she was a freshman and he was her advisor, encouraged her to join his team under the Undergraduate Research Opportunities Program, working independently on a project to develop new methods for gene transfer. He said she was an excellent student and ideal laboratory worker-"conscientious and motivated, friendly and helpful; she took good notes and kept the laboratory neat and clean.'

Dr. Zhang said Ms. Carpenter's research involved developing ways to change one type of cell to another under environmentally induced conditions in a three-dimensional peptide scaffold hydrogel.

"Her work will have a tremendous

impact on the basic study of biology, and treatment of a variety of diseases and aging," he said, noting that Ms. Carpenter "will certainly be one of the authors for the paper" when it is published. "This all [her death] is very, very sad," he said.

Ms. Carpenter, who grew up in Houston, where she attended Stratford High School, planned to attend medical school. She was an accomplished student and talented musician who entertained nursing home residents with violin performances when she was in middle school. At MIT, she was a member of Alpha Chi Sigma, the professional chemical society for students.

"I am very sad that Julie is no longer with us," said her advisor, Professor Daniel Blankschtein of chemical engineering. "Having a daughter who is a freshman at Brandeis, I can imagine what her parents are going through at this time.

Ms. Carpenter attended a rooftop birthday party at Random Hall Sunday night at which only soft drinks were served. The dormitory's housemaster called Campus Police at about 2:30am Monday after Ms. Carpenter's roommate found her on the floor of her room. Campus Police officers said Ms. Carpenter was dead when they arrived.

She is survived by her parents, Timothy and Kay Carpenter, and a younger sister, Lindsay Ann, all of Houston. The funeral service will be conducted tomorrow at 10am at the Memorial Drive United Baptist Church in Houston.

MIT TECH TALK

(USPS 002157)

Robert J. Sales

Applications due for Marvin E. Goody building arts prize

pplications for this term's Marvin AE. Goody Prize, a \$5,000 award for a master's thesis that advances the building arts, are now available.

Joan E. Goody of Goody, Clancy & Associates in Boston established the prize in 1983 as a memorial to her husband, Marvin E. Goody, an MIT alumnus and faculty member.

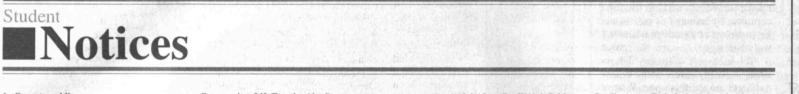
The award aims to extend build-

ing techniques and use of materials, to encourage links between the academic world and the building industry and to increase appreciation of the bond between good design and good building-criteria intended to reflect the range of Professor Goody's interests as a teacher, researcher and designer.

The competition is held in January (for theses completed four months

later) and May (for theses completed the following January). It is administered by a committee including faculty members from architecture and civil and environmental engineering.

Forms and further information are available in the Department of Architecture headquarters in Rm 7-337. The deadline for applications is 5pm on Monday, May 7.



* Open to public ** Open to MIT community only

INSTRUCTIONS: Listings for Student Notices should be submitted using the form at <http://web.mit.edu/newsoffice/tt/calform. html>. If you have questions, pleas <ttcalendar@mit.edu> or x3-1683. contact

May 2-13

RELIGIOUS ACTIVITIES

The Chapel is open for private meditation 7am-11pm daily.

Communitas-Life Together**-Protestant worship, 11am Sunday. Sponsored by American Baptist Church, United Church of Christ, United Methodist Church, Presbyterian Church. Chaplain John Wuestneck, x2-1780 or <chaplain@mit.edu>.

Graduate Christian Fellowship**-Fridays at 6pm. Also weekly Bible studies, prayer and volleyball. More info: http://web.mit.edu/ mitgcf/> or <mit-gcf-info@mit.edu>.

Lincoln Laboratory Bible Study*-Mondays, 12-12:30pm, weekly Bible study in the Group 73 conf rm, D-382. More info: Sharon Frigon at 981-7751 or <frigon@ ll.mit.edu>

gregation 1:10-1:45pm, Rm W11-110. More info: x8-9285.

Orthodox Christian Fellowship**-Wednesdays at 5:30pm in Student Ctr DR 1 for dinner followed by Chapel Vespers. John Kymissis x5-7649 or Costa Sapuntzakis x5-7683.

Protestant Eucharist/Holy Communion*-Wednesdays, 5:10pm in Bldg. W11. Sponsored by the Lutheran-Episcopal Min-istry at MIT. More info: x3-2325 or <lutheran@mit.edu>.

Taize Prayers*-Fridays, noon-12:30pm in oard Room.

On-Campus, Technical. I am developing a dynamic mapping tool for mobile handheld devices and I need help making an interactive design demonstration in Flash/Director by May 14. Salary negotiable. Call Aradhana Goel at 617-491-3678.

On-Campus, Non-Technical. General manager and ordering manager positions available at the Coffeehouse. Salary depends on experience. Deadline for applying: Friday, May 4. To apply stop by the CAC, Rm W20-500, to fill out an application or contact Anna Lane at x5-6189 or <annalane@mit.edu>.

Off-Campus, Technical. Cambridge Transcriptions is looking for a part-time bookkeeper/ accountant, familiar with preparing checks to vendors, monthly statements and invoices. Ideal candidate knows QuickBooks Pro 2000/ 2001, understands general accounting and can work with little training. Pays \$15/hr. Contact Buck Ewing at <buck@ctran.com>.

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Publisher KENNETH D. CAMPBELL
Editor ALICE C. WAUGH
Associate Editor DENISE BREHM
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Assistant: Lynn Heinemann.

News Office e-mail: newsoffice@mit.edu News Office URL: http://web.mit.edu/newsoffice/www/ Office of the Arts URL: http://web.mit.edu/arts

Baptist Campus Ministry**-Weekly events: Sunday nights at the RAC, 6pm, main dining rm, Bldg. W11. Home-cooked meal (cost: by donation) followed by Bible study. Tuesday Vespers, 6-6:30pm, chapel. More info: x3-2328.

Baptist Student Fellowship*-Weekly meetings on Tuesdays, include dinner followed by Bible study. 5:30-7pm, Bldg. W11, small dining room. Sponsored by Baptist Campus Ministry, More info: x3-2328

Campus Crusade for Christ**-Weekly meeting on Wednesdays, 7:45pm, PDR 1 & 2, 3rd fl Student Ctr. More info: x5-6204 or <gnelson@mit.edu>.

Chi Alpha Christian Fellowship**-Weekly organizational meeting, Tuesdays, 7:3-9pm, PDR 3 in Student Ctr. Christian worship and examination of the book of Revelation. Prayer and fasting each Thursday from 12-12:45pm in Rm W11-063. More info: x3-2327, <cacf@mit.edu> <http://www.mit. edu/activities/xa/main/html>.

Christian Science Organization**-Thursdays at 7pm. More info: x3-8797 or <lnorford@ mit.edu>.

Lutheran-Episcopal Ministry at MIT*-Wednesday worship 5:10pm, followed by either brown bag supper or social activity in the Bldg. W11 dining room. Second Sunday of each month, LEM assists at Common Cathedral, a gathering of homeless people on the Boston Common, at 1pm. More info: x3-0108.

Meditation and Discourse on the Bhagavad Gita*-With MIT chaplain Swami Tyagananda, monk of the Ramakrishna Mission of India. Every Friday, 5:15pm, MIT Chapel. Sponsored by the MIT Vedanta Society. More info: 661-2011, <mehta@cytel.com> or <http://www.cytel.com>.

MIT Hillel**-Tuesdays: 5:30pm beginning Hebrew; 6:30pm intermediate Hebrew. Wednesdays: noon Hebrew conversation table in Walker cafeteria; 7pm Haftorah class. Thursdays: noon Taste of Torah. Fridays: 6pm Egalitarian Chavurah services and Orthodox Minyan services; 7pm Shabbat dinner. Saturdays: 9am Orthodox Minyan services; 12:45pm Shabbat lunch. More info: x3-2982.

MIT Muslim Students Association*-Five daily prayers, Bldg. W11; also Friday con-

students from the Protestant Ministry at MIT, Tech Catholics and the Lutheran-Episcopal Ministry. Taize Prayers are a form of Christian meditation based on singing and silence.

Tech Catholic Community**-Sunday Masses 9:30am, 1pm and 5pm. Masses Tuesday and Friday at 12:05pm in MIT chapel, when classes are in session. More info: x3-2981 or <catholic@mit.edu>.

United Christian Fellowship (UCF)**-A member of Intervarsity Christian Fellowship. Large group meetings Fridays at 7:15pm, 3rd floor of Student Ctr. Weekly dorm-based Bible studies on campus. More info: Sherry or Sara at 576-5157, <mitucf@mit.edu> or <http://web.mit.edu/ucf/>.

STUDENT JOBS

For other job listings and more information about the following listings, go to the Student Employment Office, Rm 11-120 or <http://web.mit.edu/ seo/>. The MIT Student Employment Office functions much like the classified section of a local newspaper and does not screen potential employers or employees.

The following positions are for students with Federal Work-Study Eligibility.

Community Service. The Women's Lunch Place, a shelter for poor and homeless vomen seeks temporary staff for our busy Mother's Day card writing campaign. Contact Mary at <mary@womenslunchplace.com> or 617-267-1722.

Community Service. The Technology Charter High School needs work-study students to help set up and administer computer labs, school databases and technology projects. Hardware and Windows experience needed; Windows 2000 server administration helpful. Contact Jane Smith at x8-5614 or <jsmith@mit.edu>.

Community Service. Public Service Center needs a student coordinator for the CityDays Program. Hire immediately. Pays \$10/hr. Call Jill Soucy at x3-0742.

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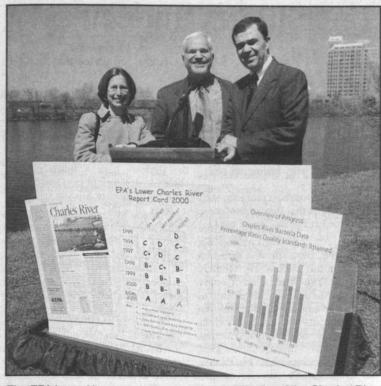
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Recycled Pap



The EPA issued its annual report card on the quality of the Charles River last Friday at Magazine Beach in Cambridge. Left to right: MIT's Jamie Keith and Paul Parravano, and the EPA's Ira Leighton show the river's grade-a B. Photo by Donna Coveney

MIT sponsors design contest for storm water

By Robert J. Sales **News Office**

IT will sponsor a design com-Mpetition to develop storm water management plans that will improve the quality of the Charles River, Paul Parravano, co-director of the Office of Government and Community Relations, announced Friday.

"We believe that the competition we're planning with the Environmental Protection Agency will help produce the innovative ideas required to achieve our common goal for additional improvements in water quality," Mr. Parravano said. "Together with the EPA, we seek significant participation in the competition, followed by implementation of the winning design concept. The aim of the competition will be to resolve storm water issues from residential areas in the Charles River basin.'

Details of the competition were announced at a news conference at Magazine Beach in Cambridge, during which the EPA issued its annual report card for the river. The event is part of the Clean Charles Initiative, started in 1995 with a goal of making the river safe for swimming and fishing by 2005.

The winning entry in the competition will receive a \$5,000 prize plus up to \$10,000 to implement the plan. The runners-up will also receive cash prizes. Applications will be available in September from MIT and the EPA. A winner will be announced in late November.

We hope to gain from the winning concepts replicable, creative and adaptable ideas that can be implemented reasonably," Mr. Parravano said.

The competition was designed

licity. I think this is the fun part coming up," said Mr. Varat, who is from Santa Monica and plans to return to California after graduation this June. He will be succeeded by Alexis Bennett, a graduate student in urban studies and design from Venice, CA.

The EPA grade for the Charles River water quality was a B, the same as last year. It was the first time since the report cards had been created that water quality had not improved.

The Clean Charles 2005 effort might be compared to running a marathon," Mr. Parravano said. "The B grade on this year's report card demonstrates that much hard work has been accomplished. These last few miles to the finish will not be easy.

"Progress will be slow, but a strong, steady approach will bring us home. Like the runner who must call on each of her muscles to keep going, we too must ask every member of our community to do their part if we are to have a chance at finishing this critical work. While this year's grade may show that we have slowed some, the groundwork has been laid by the EPA for a strong rally in the remaining time.

'Let's go get this done. When we come here in 2005, we're going in the water!

As he spoke, the temperature at Logan Airport was 52 degrees with winds blowing at 9mph. The water temperature in Boston Harbor was 45° F.

Vest addresses science advisors

By Deborah Halber News Office

Sounding a warning call to those who oversee the nation's science and technology agenda, President Charles M. Vest said Tuesday that federal spending on research and development is proportionately lower than it was 15 years ago and significantly fewer engineers are graduating from American universities.

Dr. Vest was speaking to an audience of more than 200 that included eight former science advisors to presidents from Truman to Clinton. The group was at MIT to celebrate the 25th anniversary of the Office of Science and Technology Policy (OSTP) and to discuss future issues for science.

The day-long conference on science and technology policy in Wong Auditorium was sponsored by MIT's Technology and Policy Program (TPP) and cosponsored by the Sloan Foundation, the President's Office, the Engineering Systems Division and the TPP.

Former presidential science advisers spoke about the issues they faced while in office. Other distinguished speakers took a prospective look at science and technology policy issues.

The eight former presidential science advisors attending the conference and the presidents they served

were William T. Golden (Truman), Donald Hornig (Johnson), Edward E. David Jr. (Nixon), H. Guyford Stever (Nixon and Ford), George A. Keyworth III (Reagan), D. Allan Bromley (G.H.W. Bush), John Gibbons (Clinton) and Neal Lane (Clinton).

Dr. Vest told conference participants that a passionate new commitment to science and technology funding is vital to jump start the sluggish economy and maintain the benefits of America's recent economic success.

PARTNERSHIP FOR SUCCESS

Dr. Vest has long been involved in promoting to Congress the value and potential of investing in science and technology. He says America's prosperity in the past 50 years is due to an 'innovation system" that partners academia, industry and government.

In this system, universities create new generations of scientists and engineers who in turn generate new ideas; industry translates these ideas into products and services; and federal and state governments provide financial support and adopt policies that make the system work.

To keep the system going, Dr. Vest says the American K-12 education system must be improved; more Americans need to be lured to careers in science, mathematics and engineering; and young scientists and engineers need to be educated in the broader skills it takes to make things happen in the real world.

At MIT, this need is being addressed through the Technology and Policy Program, the largest program in the world in which engineering students receive an in-depth understanding of disciplines such as economics, law and politics.

NEW COMMITMENT NEEDED

Among the reasons Dr. Vest cited for the need for a renewed commitment to science and technology funding:

• Broad-based fundamental research is vital to national security.

· Science will help provide answers on how to alleviate suffering and create opportunities for people around the world.

· Science will help improve health and safety for US citizens, including the disadvantaged and physically challenged.

In the half-century since World War II, fully half of the growth of the US economy has been due to technological innovation, Dr. Vest said.

"As people with the expertise and experience to appreciate these problems in all their dimensions, it's our job to make the case in Washington for prompt and continuing action," he said. "We need to persuade federal leaders that broad-based, fundamental research is an investment, not a cost."

Nearly half of all US presidential science advisors have had ties to the Institute

MIT, the host for yesterday's 25th anniversary celebration of the creation of the Office of Science and Technology Policy, has many links to presidential science advisors.

Eight of the 18 formal or informal science advisors to the President of the United States since 1940 have had ties to MIT, starting with Vannevar Bush, a member of the Class of 1916 and MIT vice president. He was appointed by President Franklin D. Roosevelt as chairman of the National Defense Research Committee in 1940.

James R. Killian Jr. was appointed by Dwight D. Eisenhower as the first special assistant to the president for science and technology in 1957, when Killian was president of MIT. Killian, a member of the Class of 1926 and MIT president from 1949-59, served as Eisenhower's science advisor from 1957-59.

Other informal or formal presidential science advisors with MIT connections include:

• Lee DuBridge (Presidents Truman, Eisenhower and Nixon), the second chairman of the President's Science Advisory Committee (PSAC) under Truman and Eisenhower, and director of MIT's wartime Radiation Laboratory, which developed the key technology of radar instruments.

• Isidor Rabi (Eisenhower), the third chair of PSAC and associate director of MIT's Radiation Laboratory.

· Jerome Wiesner (Kennedy and Lyndon Johnson), director of the Research Laboratory of Electronics and later dean of science, provost and president of MIT.

• Edward E. David (Nixon), who received the SM and ScD in 1950 and is a life trustee of MIT.

• H. Guyford Stever (Nixon and Ford), head of the Department of Mechanical Engineering from 1961-65. • Frank Press (Carter), head of the Department of Earth, Atmospheric and Planetary Sciences from 1965-77.

Vannevar Bush served Roosevelt for five years and continued on into the term of Harry S Truman, although historians of the field say Truman ignored him

In between Bush and Killian were a number of scientists who advised the president in a less formal way, according to government historians and Dr. William Wells, former chief of staff to Presidential Science Advisors D. Allan

Bromley (G.H.W. Bush), John H. Gibbons (Clinton) and Neal Lane (Clinton). Dr. Wells, now retired, wrote his thesis on the office of science advi-SOL

The list of science advisors following Dr. Killian are:

George B. Kistiakowsky (Eisenhower), 1959-61

Jerome B. Wiesner (Kennedy and Johnson), 1961-64

Donald Hornig (Johnson), 1964-69 Lee A. DuBridge (Nixon), 1969-70 Edward E. David Jr. (Nixon), 1970-73

H. Guyford Stever served Nixon from 1973-74 as science advisor, although Nixon had abolished the post of special assistant for science and technology. Stever stayed on with President Ford, who restored the assistant and created the post of Director of the Office of Science Technology and Policy in 1976.

Frank Press (Carter), 1977-81

George A. Keyworth II (Reagan), 1981-86

John P. McTague (Reagan), 1986 William R. Graham (Reagan), 1986-89

D. Allan Bromley (G.H.W. Bush), 1989-93

John H. Gibbons (Clinton), 1993-98 Neal Lane (Clinton), 1998-2001.

pilot project proposals

Center seeks environmental

two urban studies and design graduate students, working with EPA officials: Dan Delisi, who graduated last June, and Adam Varat.

Mr. Delisi, son of a Boston University professor from Brookline, worked on the project for two years before he graduated and moved to Fort Myers, FL to work for a design firm. "The EPA staff I worked with were constantly looking for ways to educate the public and municipalities," he recalled. "That's the whole idea of the design competition-to create another model for storm water management that can be replicated. So all in all, it was a very exciting idea and project to work on."

Mr. Varat, who replaced Mr. Delisi, did much of the paperwork and drew up the ground rules for the competition. "From here on out, we'll be doing the planning for the competition, tasks such as finding judges, determining evaluation criteria and pub-

The Center for Environmental Health Sciences (CEHS) invites faculty members to propose pilot projects related to environmental health for immediate funding by the center.

This interdisciplinary research center, funded by the National Institute of Environmental Health Sciences, has been supporting such pilot projects in many MIT departments since 1978. Most projects have lead to independently funded sponsored research projects and programs at MIT.

The Pilot Project Program provides initial support for faculty to enter the environmental health area. Junior faculty proposals receive preferential consideration. CEHS has been able to fund all proposals from junior faculty since its founding. In the past decade, it has funded researchers from brain and cognitive sciences, chemical engineering, chemistry, civil and environmental engineering, toxicology, materials science and engineering, mechanical engineering and nuclear engineering.

Applicants should submit a a twopage description of the proposed research and a detailed budget for pilot projects in the fields of epidemiology, environmental engineering (sources, fate and transport), chemical and biological analyses in human tissues and/or toxicology. Total costs of \$10,000 to \$25,000 per project for five or more projects are anticipated. Send materials to Professor William Thilly in Rm 16-743.

Proposals will be received until May 16. At its May 22 meeting, the CEHS multidisciplinary steering committee will review proposals and apportion funds, which should be available May 30. Questions on content or direction should be e-mailed to Professor Thilly at <thilly@mit.edu>. Questions about budgeting or other administrative matters should be addressed to Gerti Gillen at <ggillen@mit.edu>.

Faculty, staff pledges sought for students in hunger walk

Students walking in Project Bread's Walk for Hunger this Sunday (May 6) are asking faculty and staff to make monetary pledges of support via the Internet in a campus-wide campaign organized by the InterFraternity Council (IFC).

The IFC's community service committee plans to raise at least \$3,000 in the 20-mile walk that supports nearly 400 emergency food programs in 129 Massachusetts communities.

"We wanted to organize an MITwide effort that would get a lot of people out there wearing MIT T-shirts. We hope to get close to 1,000 students walking," said firsttime walker Daniel Yoo, a sophomore in management who chairs the IFC community service committee. "If just 10 faculty members pledge \$5 for 10 students, that's already \$500 raised."

The group set up a web site at <http://ifc-web.mit.edu/walk/> to make it easy to pledge support for MIT student walkers. Community members need give only their name, e-mail address and the number of students and amount pledged before Sunday. The IFC community service committee will contact pledgers after the walk to collect funds. For more information, see the web site or contact Mr. Yoo at <dvoo@mit.edu>

Denise Brehm

Carnival-goers can attempt sumo wrestling

The Panhellenic Association will hold a carnival offering faculty, staff, students and families a chance to do a little sumo wrestling on Kresge Oval on Friday, May 4 from 2:30-6:30pm.

Carnival-goers can don a special costume stuffed with padding and featuring the traditional sumo attire to mimick the size and dress of an actual sumo wrestler. Other attractions include a boxing-ringshaped moonwalk with inflatable gloves, a giant slide and a miniature golf course.

There will be six traditional car-

nival game booths with prizes, palm and tarot card readings, free balloons and face painting. A DJ will play a wide assortment of music, and food will be served at the Kresge barbecue pits. If it rains, the event will be moved to La Sala de Puerto Rico in the Student Center.

The free carnival is sponsored by the Thomas G. Glen Weekends@MIT fund. For more information, contact Vida Ha, social chair of the Panhellenic Association, at <vida@mit.edu> or see the web site at <http://web.mit.edu/ vida/www/panhell.html>.

2.007 robot contest gets underway

By Sarah H. Wright News Office

MIT's Department of Mechanical Engineering will host the 31st Design 2.007 contest on Wednesday, May 9 at 7pm in the Johnson Athletics Center.

The celebrated event is an annual elimination tournament in which robots designed and built during the semester by students in 2.007 (Introduction to Design and Manufacturing) compete in 45-second rounds.

The contest gets a new name each year. This year it's called Tiltillator, thanks to the see-saw-shaped contest table.

MacVicar Fellow Alexander H. Slocum, professor of mechanical engineering, is the head instructor for Design 2.007 and the emcee for the contest.

Commenting on the radical departure from the planar table of recent years, he said, "Every year we ask the students what they think would be a great contest for next year. They told us they want more ways to score and they don't want to be so limited by the table. This data, combined with inspiration from an early 2.70 seesaw-like contest, led to the creation of Tiltillator. I wanted to add potentially zany dynamics and no table limits to give power geeks twisted strategy potential. I also must admit, as an ultra Britney Spears fan, 'Oops, I tilted again!' was a major influence.'

Ahmed M. Elmouelhi, a senior in mechanical engineering and head undergraduate assistant in the course, said, "The best thing about this year's table is that it allows for a lot more direct contact between the contestants. In other words, you can expect to see a lot more machines interacting with each other. And who doesn't like action?

"This table also forces poorly engineered machines out of the contest. Only the students with solid, thoughtout machines will survive until the

second day," he added.

The goal for each machine is to bring its own end of the I-beam-like table closest to the floor. As each round begins, the beam is balanced. The winner of the round is the machine closest to the floor. As each machine struggles to outweigh the other, a soccer ball swings pendulum-like from a central pole, adding an ominous note.

"One of the toughest problems the students face is that they cannot reasonably predict the motion of the table," Mr. Elmouelhi said. "The pendulum suspended from the top of the table adds all sorts of messy dynamics to the beam and so students can never be sure when the table will tilt. That makes designing a machine into an absolute nightmare. But just like every year, the students are amazing us with their creativity and their solid engineering knowhow."

Another innovation for 2001 is remote control. This year, student competitors will stand at podium-like boxes several feet away from the seesaw table. Previously, drivers huddled around the contest table, obscuring the audience's view.

"The physics is more competitive; the students have a much greater chance to strut their physics and design prowess," Professor Slocum said.

Fans of 2.007 should be on the lookout for machines that "jump off the table and machines that suck onto the sides of the table. Those should be really cool," Mr. Elmouelhi said.

The principal corporate sponsors for Design 2.007 include Ford Motor Co., General Motors Corp., Guidant Corp., Parametric Technology Corp. and SolidWorks Corp. Several other companies provided materials.

The MIT-Germany Program cordially invites you to a talk on

"Virtuous Virtuality– The Practice of Airline Alliances and Other Current Aviation Issues"

by Dr. Jürgen Weber Chairman and CEO, Lufthansa German Airlines

Wednesday, May 9 at 5:30pm Room E51-395

Sponsored by: The MIT International Science and Technology Initiatives (MISTI)

Open to the public

Contact Sigrid Berka, x3-6982, sberka@mit.edu

Miller Lecture on Science and Ethics set for May 7

This year's annual Science, Technology, and Society-sponsored Arthur Miller Lecture on Science and Ethics—"When I Say 'We,' Who Is Talking? Ethical Dimensions of Pronoun Usage in Science and Technology Discourse"—will be delivered by John Staudenmaier on Monday, May 7 at 4pm in Bartos Theater (Building E15).

Mr. Staudenmaier, a Jesuit priest and professor of history at the University of Detroit Mercy, has been editor of Technology and Culture since 1995. He has served as visiting faculty at MIT, Santa Clara University and Boston College.

He has written several historiographical studies of the history of technology, most notably *Technolo*gy's Storytellers: Reweaving the Human Fabric (MIT Press, 1985). He interprets cultural mentalities as they influence the direction of technological shape personal, institutional and communal behavior within their host societies. The lecture honors the memory of Dr. Arthur Miller, an MIT alumnus

change and core technologies as they

Dr. Arthur Miller, an MIT alumnus (SB 1945) noted for his distinguished work in electronic measurement and instrumentation.

During World War II, he was loaned out by the Sanborn Co. (later incorporated into Hewlett-Packard) to the Radiation Laboratory, where he worked for several years. His medical contributions included methods to reduce shock hazards in hospital monitoring systems, and designing the first commercial cardiographs that featured adequate patient circuit isolation from line and ground.

The talk is free and open to the public. For more information, call Debbie Meinbresse at x3-4062.

Calendar

* Open to public ** Open to MIT community only

(For arts-related listings, see page 6.)

INSTRUCTIONS: Seminars & Lectures must be submitted to the online Events Calendar at <http://events.mit.edu>. If you have questions about using that calendar, see the online help page, contact the I/S Computing Help Desk (Mac: x3-1101, PC: x3-1102) or e-mail <computing-help@mit.edu>.

Listings for Community Calendar should be submitted to the News Office using the form at <http://web.mit.edu/newsoffice/tt/calform. html>. If you have questions, please contact <ttcalendar@mit.edu> or x3-1683.

Events must be MIT sponsored and take place on the MIT campus or at an MIT affiliate (Draper Labs, Lincoln Laboratory, etc.).

Next deadline for all types of listings is noon Friday, May 4, covering events from WednesWhat Genomes Can Tell Us About Protein-DNA Interactions*—Leonid Mirny, Harvard Univ. Sponsored by HST. 4pm, Rm E25-101. More info: x3-5298, x3-7608, <lmaurer@mit.edu>.

Lecture Series Committee Presents Artist Arthur Ganson*—Sponsored by LSC. 7pm, Rm 26-100. More info: x8-8881, <lsc@ mit.edu>, <http://lsc.mit.edu/>.

THURSDAY, MAY 3

- Improving Global Modeling and Data Analysis Using Remotely-Sensed Rainfall Data: Lessons From TRMM and Plans for GPM*—Arthur Hou, DAO at NASA GSFC. MIT Atmospheric Science Seminar. 4-5pm, Rm 54-915. More info: x3-1984, <wglawson@mit.edu>, <http://www-paoc. mit.edu/MASSseries.html>.

Sponsored by Ctr. for International Studies. 3-5pm, Rm E38-615. More info: x3-1684, <slischer@mit.edu>.

- Energy Quantization for Yang-Mills Fields and Harmonic Maps*—Tristan Riviere, Ecole Polytechnique. Differential Geometry Seminar. 3:30-4:30pm, Rm 4-159. More info: x3-4384, <jeffv@math.mit.edu>, <http://www-math.mit.edu/~jeffv/DG_ Current.html>.
- The Weak Temperature Gradient Approximation for Tropical Atmosphere Dynamics* —Adam Sobel, Columbia Univ. MIT Atmospheric Science Seminar. 4-5pm, Rm 54-915. More info: x3-1984, <wglawson@mit.edu>, <http://web.mit.edu/ddlucas/www/ MASS_S01.html>.
- Polaritonics*—Keith Nelson, Chemistry. Sponsored by Ctr. for Materials Science and Engineering. 4-5pm, Rm 13-2137. More info: x3-6850, <jlandry@mit.edu>, <http:// web.mit.edu/cmse/www/>.

<atherton@plume.mit.edu>, <http://puddle. mit.edu/~atherton/sack.htm>.

- Semidefinite and Semistable Programming*— Michael L. Overton, New York Univ. Sponsored by Singapore-MIT Alliance/HPCES. 4-5pm, Rm 1-390. More info: x3-8997, <rfreund@mit.edu>.
- Virtuous Virtuality—The Practice of Airline Alliances and Other Current Aviation Issues*—Jürgen Weber, CEO, Lufthansa German Airlines. Sponsored by MIT-Germany program. 5:30-6:30pm, Rm E51-395. More info: x3-6982, <sberka@mit.edu>, <http://web.mit.edu/mit-germany/new.htm>.

THURSDAY, MAY 10

Coding Innovation*—Lawrence Lessig. Sponsored by Lab for Computer Science. 3:30-5pm, Rm 34-101. More info: x3-0145, <remlee@hq.lcs.mit.edu>, <http://www.mit. edu/events/dls.html>. Barbara. 3-4pm, Rm 66-110. More info: x3-4562, <patsys@mit.edu>.

COMMUNITY CALENDAR

- MIT Community Summer Softball—Wednesday, May 2: annual meeting, Student Ctr., Rm 491, 5:30pm. Wednesday, May 9: umpire signup, Student Ctr., Rm 491, 5:30pm. Thursday, May 17: umpire clinic, Rm 1-190, 5:30pm. New teams and umps welcome. More Info: Maryann Smela, x3-6207, <mare@mit.edu>.

day, May 9 through Sunday, May 20.

May 2-13

SEMINARS & LECTURES

WEDNESDAY, MAY 2

- Global Undersea Cable Networks*—Neal Bergano, TyCom Laboratories. Sponsored by Optics. 11am-12pm, Rm 34-401B. More info: x3-8504, <ippen@mit.edu>.
- Physical Oceanography Sack Lunch Seminar*—Michael Allison, NASA. 1:30-2:30pm, Rm 54-915. More info: x3-2437, <atherton@plume.mit.edu>, http://puddle.mit.edu/~atherton/sack.html.
- Industry Leaders in Technology and Management Lecture: Managing for the Next Big Thing in an Information-Intensive Economy*—Michael C. Ruettgers, EMC Corporation. Sponsored by Office of Corporate Relations/ILP. 4-5:30pm, Wong Aud., Tang Ctr. (E51). More info: x8-9419, <maupin@ilp.mit.edu>, <http://ilp.mit.edu/ ilp/Conferences/Industry.html>.

Andrew Lo. Sponsored by Operations Research Ctr. 4:15-5:15pm, Rm E56-270. More info: x3-7412, <ajm@mit.edu>, <dushyant@mit.edu>, <psun@mit.edu>, <http://web.mit.edu/orc/www>.

- Physics Colloquium*—Francis Halzen, Univ. of Wisconsin. 4:15-5pm, Rm 10-250. More info: x3-4801, <physhdq@mit.edu>, <http:// web.mit.edu/physics/fyi/physics_colloquium_ sched.htm>.
- The Challenge of Sustainable Appropriate Technology for the Developing World*— Jozef Nagels, Vietnam Veterans of America Foundation. Sponsored by HST. 4:15pm, Rm E25-111. More info: 617-632-7654, <dsodicks@caregroup.harvard.edu>.
- Anime Identities: Japanese Anime and the American Audience*—Susan J. Napier. Sponsored by Women's Studies Program and Comparative Media Studies. 5pm, Rm 2-105. More info: http://web.mit.edu/womensstudies/www.

MONDAY, MAY 7

Mellon-MIT Program on NGOs and Forced Migration: Research Presentation*-Rafael Bonoan and Theresa Stichick.

TUESDAY, MAY 8

- Civic Environmentalism: Democratic Pathways to Sustainability: A Roundtable Series*—Ann Fowler Wallace, Marion Kane, Rachel Pohl, Noel Fritzinger. Sponsored by Dept. of Urban Studies and Planning. 12:30-2pm, Rm 7-338. More info: x3-2024, <anzer@mit.edu>, .">http://web.mit.edu/dusp/EPG/>.
- MTL VLSI Seminar*—Vidya Kaushik, Motorola. 4-5pm, Rm 34-101. More info: x3-5264, <debb@mtl.mit.edu>, <http://www-mtl.mit. edu/MTL/seminar/Spring01/ALL.html>.
- Real-Time Monitoring of Infrastructure Through the Web*—Prof. Kevinamaratunga. Sponsored by Engineering and Environmental Mechanics Group. 4-5pm, Rm 1-350.
- Gas Turbine Seminar*-4:15-5:30pm, Rm 31-161. More info: x3-2481, <dragonl@ mit.edu>.

WEDNESDAY, MAY 9

Physical Oceanography Sack Lunch Seminar*—Jim Ledwell, WHOI. 12:10-1:10pm, Rm 54-915. More info: x3-2437,

- MIT Atmospheric Science Seminar*—Tapio Schneider, New York Univ. 4-5pm, Rm 54-915. More info: x3-1984, <wglawson@ mit.edu>, <http://www-paoc.mit.edu/MASS series.html>.
- Computational Methods for Congestion Toll Pricing Models*—Don Hearn, Univ. of Florida. Sponsored by Operations Research Ctr. 4:15-5:15pm, Rm E56-270. More info: x3-7412, <ajm@mit.edu>, <psun@mit.edu>, <dushyant@mit.edu>, <http://web.mit.edu/orc/ www>.
- Physics Colloquium*—Ashoke Sen, Mehta Research Institute. Sponsored by Physics Dept. 4:15-5pm, Rm 10-250. More info: x3- 4801, <physhdq@mit.edu>, <http://web. mit.edu/physics/fyi/physics_colloquium_ sched.htm>.

FRIDAY, MAY 11

- The IBOT: A Design Case Study*—Dean Kamen, DEKA Research and Development Corp. ME Seminar. 3-4pm, Rm 3-133. More info: x8-5807,

chenson@mit.edu>.
- Dept. of Chemical Engineering Seminar*-Dimitrios Maroudas, Univ. of CA, Santa

MITAC

The MIT Activities Office (MITAC) serves the cultural and recreational needs of the MIT community, including retirees. Two locations: Walker Memorial, Rm 50-005, 10:30am-4:30pm, Wednesday-Friday: and Lincoln Lab, Rm LL-B-210, noon-4pm, Thursday and Friday only. More info: x3-7990, <dtavit@mit.edu>, <http:// web.mit.edu/oscs/mitac>. MITAC accepts cash, checks and MasterCard and Visa (\$20 minimum). MIT IDs must be presented.

- Joyful Noise Coffeehouse Presents Karla Bonoff (First Baptist Church, Lexington, MA), May 5, 8pm. \$18 (reg. \$20). Purchase by 5/4.
- Mothers & Others Day Brunch (MIT Faculty Club, Cambridge), May 13, 11:30am-2:30pm. \$26/adult; \$14/children 5-12; under 5, free. Purchase by 5/4.
- Noontime Garden Walk at MIT (MIT, Cambridge), May 15, noon-1pm. Free. Make reservations by 5/4.
- Chameleon Arts Ensemble: Spring Strains (First and Second Church, Boston), May 19, 8pm. \$16/floor (reg. \$20). Purchase by 5/11.

Alum completes first space station expedition

By John Tylko SB 1979

I S Navy Captain and MIT alumnus William M. Shepherd recently completed his historical role as commander of the first International Space Station (ISS) Expedition 1 crew.

The mission fulfilled the goals envisioned nearly eight years ago by the Advisory Committee on the Redesign of the Space Station, headed by MIT President Charles M. Vest. The committee recommended that the United States include Russia in the international partnership, use the Russian Soyuz crew-return vehicle and incorporate an orbital inclination of 51.6 degrees to allow launches from both the United States and Russia.

Capt. Shepherd and two Russian cosmonauts were launched on October 31, 2000 aboard a Russian Soyuz spacecraft from the Baikonur Cosmodrome in Kazakhstan and returned to Earth aboard the space shuttle Discovery on March 21, completing a mission of nearly 141 days in space.

The desire to settle a frontier continent, build railroads coast to coast, the opening of the Panama Canal-

"The desire to settle a frontier continent, build railroads coast to coast, the opening of the Panama Canal—these are things that have strongly influenced who we are as a nation, and exploring space is a logical extension of that." -William Shepherd

these are things that have strongly influenced who we are as a nation, and exploring space is a logical extension of that. We have to continue to extend our vision for space exploration," said Capt. Shepherd, who earned the ocean engineer degree and SM in mechanical engineering in 1978. "It's very likely that the day of our launch last fall will be the last day that humans will live only on planet Earth.'

Capt. Shepherd was a manager on the ISS program when the Vest Committee made its final recommendations. "The recommendations of the Advisory Committee on the Redesign of the Space Station were important and helped show that the space station was technically feasible and could be

accomplished with the resources we had available," he said.

"It's been a lot harder than we expected to work with the Russians. But [there's] great benefit in being able to compare our program and theirs. We're learning a lot from the Russians," he said.

MIT EXPERIMENT

Capt. Shepherd was responsible for operating the first scientific experiment aboard the ISS, developed by engineers at MIT. "MIT's MACE-II [Middeck Active Control Experiment] was the first active US scientific investigation performed on the International Space Station," he said. "We got a bunch of successful runs. I think MACE-II is characteristic of the kind of experiment you can run on the space station. Performing scientific investigations like MACE-II on board the station allows for successful interaction, almost in real time, between the astronauts in space and investigators on the ground."

MACE-II is designed to test techniques for predicting and controlling the motion and vibrations of space structures in microgravity (see MIT Tech Talk, Sept. 13, 2000).

In the past, researchers have gone to great efforts to try to emulate the space environment in their laboratories on earth. With a facility like the International Space Station, we now have the opportunity to emulate the research laboratory in space," said Professor David W. Miller, co-principal investigator of the MACE-II experiment and Director of MIT's Space Systems Laboratory.

'MACE was really designed from a laboratory perspective, with highly reconfigurable hardware and software, to support testing under a variety of conditions and with significant realtime interaction between researchers on the ground and the astronauts in space," said Professor Miller.

Based on the successful operation of the MACE-II experiment, NASA made the decision to continue the experiment aboard the ISS. Astronaut Susan Helms, a member of the ISS Expedition 2 crew, is responsible for operating the experiment during the second long-duration mission. With the recent addition of KU-band telemetry capability on the ISS, scientists will be able to receive data shortly after the experiment is performed, rather than waiting weeks for the return of disk drives after the conclusion of the mission.

MIT is using MACE-II to test a variety of software techniques that could be used to operate the next generation of space telescopes. "Understanding how complex space structures behave in zero gravity will improve our ability to do accurate pointing of space telescopes and isolate the telescope optics from onboard vibrations," said Professor Miller.

With the completion of the first ISS mission, MIT graduates have flown on 47 space missions, or more than one-third of the nation's space flights.



Having fun at the April 27 open house and spring social hosted by the Working Group on Support Staff Issues were (left to right) Francine Choput, Olga Parkin, Linda Mousseau and Carol Clark. The event in the Bush Room brought together support staffers two days after Secretaries Day for refreshments and Photo by Donna Coveney information about the group.

Professor discusses global warming

Both nuclear power and renewable sources of energy must be included in the world's energy supply portfolio if we are to seriously tackle global warming, Professor of Nuclear Engineering Michael Golay told some 50 scientists, policy-makers and others attending a recent international symposium at MIT on nuclear energy.

Professor Golay said the world is only just beginning to address global warming. A true commitment, he said, will be accompanied by other signs such as "the transformation of environmental protection from a socially oriented popular political movement to a large-scale industrial and governmental activity." In addition, developed countries will create technologies and incentives to lower emissions in developing countries.

He added that it will also be necessary to impose "heavy restrictions and taxes on fossil fuel use." That's because he doesn't think the world will be able to produce non-emitting energy technologies that are economically superior to fossil fuels. "Fossil fuels are abundant and inexpensive, and they will [still] be [abundant and inexpensive] on the day when everyone in this room dies," he said.

Professor Golay's comments were part of a session on nuclear energy and the environment at the April 19-20 International Symposium on the Role of



Professor Michael Golay speaks at a symposium on nuclear energy.

Nuclear Energy in a Sustainable Environment. Other sessions focused on nuclear energy in a deregulated market, advanced nuclear energy options, and rethinking the nuclear fuel cycle.

The symposium was sponsored by the Center for Advanced Nuclear Energy Systems (CANES). Directed by Professor Mujid S. Kazimi, the

Photo by Donna Coveney

TEPCO Professor of Nuclear Engineering, CANES was created last year to coordinate and expand MIT activities in examining new technology options for future nuclear energy plants and fuel facilities. It also addresses the best approaches to managing and regulating such facilities.

Elizabeth A. Thomson

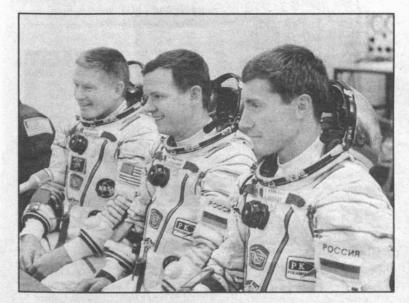
Hollywood and media come to AI Lab

(continued from page 1) Breazeal, an AI Lab postdoctoral

field. Ray Kurzweil (SB 1970) discussed the future timetable. Mr.

Kurzweil, who has founded, devel-

about the state of the art in the oped and sold four AI businesses, won this year's \$500,000 Lemelson-MIT Prize, the world's largest single award for innovation and innovation (MIT Tech Talk, April 25). Sherry R. Turkle, the Abby Rockefeller Mauze Professor in the Program in Science, Technology and Society, has written numerous articles on the "subjective" side of people's relationships with technology, especially computers. She talked about our relationship to machines. Fujitsu Professor of Computer Science Rodney Brooks, director of the AI Lab, discussed acceptance and ethics. The discussion in Rm 10-250 included a Q&A session with the panelists and with Ms. Kennedy and Haley. The AI Lab tour that followed featured demonstrations of MIT's humanoid robots Cog and Kismet, the intelligent room, DNA computing, a robotic prosthetic leg, a robotic dinosaur, the lab's latest two-legged robot and vision-tracking software.



The ISS Expedition 1 crew prior to launch from the Baikonur Cosmodrome. Left to right: crew commander William Shepherd, Yuri Gidzenko and Sergei Krikalev. Photo by John Tylko

associate who led the creation of the lab's social robot Kismet, talked



Haley Joel Osment (left) and Jude Law in a scene from the movie A.I. Photo by David James

The Grand Duke musical celebrates its 100th birthday with MIT show vaudeville comedy, the Tech Show

By Lynn Heinemann and Mary Haller Office of the Arts

The year was 1901. Carto - Marine Mar he year was 1901. Carrie Nation anti-alcohol crusade, Guglielmo Marconi transmitted the first transatlantic radio signals, President William McKinley was assassinated and the first Nobel Prizes were awarded.

On the MIT campus, then located in Boston, the Department of Ocean Engineering created a special course on warship design and the Department of Physics prepared to launch a separate Department of Electrical Engineering. And the men of MIT presented the American premiere of Gilbert and Sullivan's final collaboration-The Grand Duke.

The distinction of offering the American premiere of the operetta was called "no small feather in the theatrical cap of Tech" by MIT's student newspaper, the Tech. MIT President Henry S. Pritchett announced that on "two afternoons ... the exercises at the Institute will be suspended to allow all students to attend the Tech play."

This weekend, the MIT Gilbert and Sullivan Players (MITG&SP) will present the 100th anniversary production of The Grand Duke, a rarely produced operetta by the famous English duo of librettist and poet Sir William Schwenck Gilbert (1836-1911) and composer Sir Arthur Seymour Sullivan (1842-1900).

The MIT production will look notably different from the 1901 premiere, in part because of the dramatic changes in MIT demographics. In 1901, the MIT student population was still predominantly male and the cast was composed entirely of men, in both male and female roles. The 2001 cast is split evenly between male and female students with no cross-gendered principle roles.

The original cast was also nearly three times as large as the current cast: there was a whopping total of 64 men in the 1901 cast, and the number swelled to nearly 100 with extra dancers and a large chorus. The current cast totals 34.

Another difference in the two productions is the venue. In 1901 the show was performed in Boston's Hollis Street Theater, an opulently gilded Victorian facility (demolished in 1935) that seated more than 1,600. Its stage-51 feet deep and 73 feet wide-must have been more than adequate for the large 1901 cast. In contrast, the current production will be in La Sala de Puerto



Hollis St. Theatre

Matinee May 3 1.901

An original poster from the 1901 MIT

Rico, where students will construct a

platform stage and set up chairs for an

cluded their show with a final "grand

ballet," which the Boston Globe de-

scribed as follows: "Twenty-four stu-

dents, clad in the college colors of

red and gray, appeared upon the stage

and rapidly formed the letters 'MIT.'

Then the dance proper began, and for

10 minutes the students went through

with a whirlwind piece of work that

would show well against the achieve-

ments of any professionals. It brought

out tempestuous applause, and when

the dancers began it for the second

time they were greeted from all over

the theatre by rousing Tech cheers and

clude anything like that, said first-time

director Dave Jedlinsky (SB 1989)

with a laugh, though he said the dance

moves do include an energetic can-

can performed by 24 cast members.

"It's not the final dance, nor does it

last 10 minutes-for which the cast is

stitute's third Tech Show, a tradition

which originated in 1899 and contin-

ued through 1936. Usually an origi-

nal student-written musical revue or

The 1901 production was the In-

The current production won't in-

college yells.

very thankful."

Also, in 1901, the MIT men con-

production of The Grand Duke.

audience of 150-180.

was revived in 1947, when women first joined the cast, and continued through 1969. MIT's Musical Theatre Guild has presented Tech Shows sporadically since 1979.

We are commemorating the US premiere of The Grand Duke, performed by undergraduates of MIT," said Mr. Jedlinsky, who was one of the founding members of MITG&SP in 1988. "We are not ... the same group that did it the first time."

In homage to the initial MIT production of The Grand Duke, Mr. Jedlinsky has moved the operetta's 1750 setting to 1901. The plot-a typically topsy-turvy Gilbert and Sullivan pastiche-involves the complications that ensue when Ludwig, an actor, replaces the miserly Grand Duke of Pfennig Halbfennig after "killing" him in a statutory duel fought by drawing cards. In assuming the duke's obligations, Ludwig soon finds himself with far too many wives and prospective wives.

Both the Tech and the Boston Globe reviewed the 1901 production, and offered surprisingly different opinions of the show.

Technology Students Give an Excellent Show" proclaimed the May 4, 1901 headline for the Globe review, a lengthy feature story on the MIT production that praised its every aspect. "It was at times hardly possible to believe that one was attending a performance given by amateurs," wrote the reviewer.

The Tech's review of their peers was more severe, criticizing diction, stage presence, dropped lines and voices which they described as "not especially pleasing."

"At almost every turn the melody is either smooth or brilliant, showing here and there a newness and originality that rises to a point of marked excellence," the Globe said.

But the Tech criticized the music. "The music was not as catchy as last year's," said the writer, daring to unfavorably compare Sir Arthur Sullivan's compositions with those presumably written by an MIT undergraduate. "One does not hear snatches of it sung or whistled about Tech as was the case at that time."

The 2001 production of The Grand Duke will be performed May 3-5 at 8pm and May 5-6 at 2pm in La Sala de Puerto Rico. Tickets are \$9, \$7 for MIT affiliates and senior citizens, and \$6 for students. For more information or reservations, call x3-0190, e-mail <savoyards-request@mit.edu> or go to <http://web.mit.edu/gsp/www/>.

Arts at MIT

May Arts 2 Weds



Advanced Music Performance Tara Rosenberger Shankar (G), soprano. Love songs from the 18th-20th centuries. W/Charles Shadle, harpsichord/piano; Mea Cook (G), continuo/cello. 5pm, Killian Hall.

Gallery Closing

Dreaming of Eternity: Landscapes, Trees & Ancient Places. Photos by Sally Gregg. The Dean's Gallery, Sloan School of Mgt, Rm E52-466. Weekdays 9-5pm. 253-9455



3 Thurs

Anime Talk

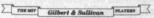
Anime Identities: Japanese Anime & the American Audience. Lecture by Susan Napier. 5pm, Rm 2-105. 253-8844

3-5 Thurs-Sat

Bhoma

Dramashop production of play by Badal Sircar. \$8, \$6 students/srs. 8pm. Kresge Little Theater. 253-2908, ds_officers@mit.edu

3-6 Thurs-Sun





MIT Concert Choir

William Cutter, director. Harbison Der Abend (premiere). Also Vaughan Williams, Maurice Durufle, Beethoven. W/Turia Stark (Boston Conservatory), soprano; Brian Church (New England Conservatory), baritone; Adam Smith (MIT), baritone. \$5. 8pm, Kresge Aud.

4-6 Fri-Sun

Not So ...

Workshop production of play written & directed by Aaron Santos '01. 8pm, Stratton Student Ctr Rm 491. 225-1795, aasantos@mit.edu



"Igor & Michael: **Concertos** for Winds" MIT Wind Ensemble, **MIT** Festival Jazz Ensemble, Kenneth Radnofsky, alto sax; Prof

Michael Colgrass

Evan Ziporyn, clarinet. Michael Colgrass, Stravinsky; Ticheli. \$2. Pre-concert talk at 7pm; concert at 8pm, Kresge Aud.

MIT/Wellesley Toons Coed a cappella ensemble. 7:30pm, Rm 10-250. Email toonsrequest@mit.edu



Poetry Slam

Poetry competition between teams from MIT, the Cantab, Lizard Lounge, & Worcester. 8pm, Rm 34-101. 253-8844, rishard@mit.edu

5-6 Sat-Sun

Emerson Scholar Student Recitals 12noon, Killian Hall.

6 Sun

MITHAS Concert

Unnikrishnan, Carnatic vocal. \$15: \$12-students & srs, MITHAS & New England Hindu Temple mem-10-MIT students. 4pm,



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\$50; and ktchn table & chairs, \$50. Negotiable. Contact 617-776-8090 or <gckoenig@ mit.edu>

IKEA "Barsta" end-table, black tubular steel legs w/glass top, tabletop 22" by 26", height 20

running cond, must sell, \$2,000 or bst. Contact x3-0021 or <rramnath@mit.edu>

2000 Ford Focus wagon, 14k mi, a/c, auto, 16V engine, pwr everything, CD, forest green, \$14,000 or bst. Contact 781-981-5165

INSTRUCTIONS: Ads are limited to one (of about 30 words) per issue and may not be repeated in successive issues. Ads may be resubmitted after skipping a week. Ads/renewals are not accepted via telephone or fax. All must be accompanied by full name and extension (or proof of MIT affiliation).

- E-mail address (return address must be mit.edu): <ttads@mit.edu>
- Interdepartmental/walk-in address: Calendar Editor, Rm 11-400.

Please note that all Tech Talk ads are provided to the Internet on the date of publication, which makes them accessible world-wide.

All extensions listed below are campus numbers unless otherwise specified, i.e., Dorm, Lincoln, Draper, etc.

MIT-owned equipment may be disposed of through the Property Office.

Deadline is noon Friday before publication.

FOR SALE

15k & 5k BTU Amana air conditioners, \$250 & \$60; entertainment console, \$75; wardrobe closet,

\$30. Contact <salil@mit.edu>.

Crib w/mattress, dark wood, v gd cond, meets all safety standards, \$85; newish Graco "jumpster," \$10. Contact <bresee@mit.edu> or x3-2888.

Gold Starair cond, \$75: Schwinn bike, \$55: dehumidfiers, \$10-\$40; records, \$1/ea; desk, \$55; chairs; lrg Vari dog kennel, \$45. Contact 617-332-8251 or <gundersen@mitlns.mit.edu>

ANIMALS

A cat called Wanda (mainly indoor) and one called Bismarck (indoor-outdoor) need a nw home Cannot keep because of increasing travel, \$5/ea. Eve x3-7182 or <annals@mit.edu>.

VEHICLES

1969 Chevy Impala, 4-on-the-fl, 350 cu in, wide wheels, needs some minor work, \$4,000. Contact 617-969-4447 or cpober@ mediaone.net>.

1985 Honda Prelude, navy blue, 131k, man 5-spd, nw exhaust, pwr sunrf, cc, AM/FM/cass, gd

<dcj@ll.mit.edu>

HOUSING

Beacon Hill: why rent? 2-rm Grove St studio, roof deck w/spectacular view, storage, remodeled and painted, walk to Red line or MIT, pets OK, \$159,000. Contact <sexton@mit.edu>.

Belmont: fum 4BR, 2b(1 w/Jacuzzi) avail 9/1, lease. lrg liv & din rm, ktchn w/dishwasher, wshr/ dryer, parkg, nr trans, no pets, \$3,400/mo. Contact 617-489-2403 or <stewart@wi.mit.edu>.

Cambridge: cozy Victorian 3BR, 2b near Harvard campus, parking, ktchn/family rm, mid-June-Aug 31, no pets or smokers, \$8,000 (most utilities). Call 617-497-0678.

WANTED

Respon person needed to sit a sweet dog and 2 fish June 15-July 5 in exchange for free board in Central Sq. Apt has patio and comfy hammock. Contact x3-1554 or <rwsun@mit.edu>.

Looking to house-sit your home, north of Boston, exc references. Call 508-494-5451.



The Grand Duke MIT Gilbert & Sullivan Players cele-brate the 100th anniversary of the show's US premiere at MIT. \$9, \$7 MIT affiliates & srs, \$6 students. May 3-5 at 8pm, May 5-6 at 2pm, Sala de Puerto Rico. 253-0190, savoyards-request@mit.edu

4 Fri

Bilingual Cabaret

"Two Legends: Dietrich & Piaf." 4-6pm, Killian Hall. 253-4771

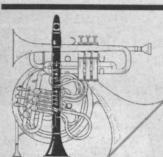
Wong Aud. 258-7971



Compton Closing

Approaching Chaos: Visions from the Quantum Frontier. The art of Harvard physicist E.J. Heller, exploring classical & wave chaos. Compton Gallery (Rm 10-150). Weekdays 9am-5pm; Weekends 12-5pm. 253-4444

6 Sun



MIT Concert Band Hindemith, Reed. 8pm, Kresge Aud. 225-1142, band-officers@mit.edu

8-20 Tues-Sun

Blanket Opening/Talk

Mixed media glass installation by by glassblower Helen Lee '00. Opening Reception & Gallery Talk by Helen Lee-May 8, 7pm. Reception follows. Intersection of Bldgs 8, 16 & 26, 2nd flr. 253-8089

9 Weds



Exhibit Opens Matthew Kolodziej: Dissolved Presences. Oil painting & mixed media. Opening Reception-May 10, 5-7pm. The Dean's Gallery, Sloan School of Mgt, Rm E52-466. Weekdays 9-5pm. 253-9455

9-10 Weds-Thurs

Buy a Pot Student Art Assn Ceramics Sale. 9am-4pm, Lobby 10. 253-7019

poetry@mit

Readings by

& Susan

Peter Anderson

Spilecki. 7pm,

Rm 14E-304.

poetry@mit.edu

253-7894,

10 Thurs



Susan Spilecki

All Month

List Visual Arts Ctr Isaac Julien The Long Road to Mazatlan & Vagabondia. 3-screen telling of a modern cowboy tale created w/Venezuelan-born choreographer Javier De Frutos; score by Paul Gladstone Reid.

Student Recital Sean Sutherland (G), piano. Franck/Bauer, Debussy, Chopin, Bach-Busoni, Prokofiev. 7pm, Killian Hall.

10-12 Thurs-Sat



Harver

MIT Community Players. \$10, \$8 other students, MIT affiliates, community & srs, \$6 MIT/Wellesley students. 8pm (also 2pm on May 12), Kresge Little Theater. 253-2530, mitcp-info@mit.edu

Playwrights-in-Performance Original student-written plays: Young & Healthy by Anand Sarwate '01; Remote Intimacy by Robert Burke (G); Ibiza by Damian Isla (G). Directed by Assoc Provost for the Arts Alan Brody. 8pm, Kresge Rehearsal Rm B. 253-2877



11 Fri

Advanced Music Performance Dawn Perlner '01, violin. Charles Shadle, Beethoven & Sarasate. 5pm, Killian Hall.

MIT Symphony Orchestra

Dante Anzolini, director. Tchaikovsky's Piano Concerto No. 1 (Jonathan Lee '02), Berlioz. \$2. 8pm, Kresge Aud.



Resonance of MIT Aural debut of MIT's newest coed secular a capella group. 8pm, Rm 54-100. Email jehinel@mit.edu

Paul Pfeiffer's The Long Count (The





Ole Nielsen (G), flute. 5pm, Killian Hall

Drumming a New World

MIT Festival Jazz Ensemble, George Schuller, drum soloist & composer, Ilona Tipp, vocalist. World premiere of work by George Schuller, more. \$2. Pre-concert talk at 7pm, concert at 8pm, Kresge Aud.

Chorallaries Spring Sing

Premiere of new album. 3pm, Rm 6-120. 253-2696, choral-info@mit.edu



13 Sun

Chamber Music Society 7pm, Killian Hall.

MIT Symphony Orchestra See 11 Fri left. 4pm, Kresge Aud.

14 Mon

Blanket Talk See 8-20 Tues-Sun above. 5:30pm.



Student Exhibit Opens Works by winners of the 2001 Schnitzer Prizes in the Visual Arts. Wiesner Student Art Gallery (Stratton Student Ctr). 253-7019



Staff Exhibit Opens Facing South. Photos by Laura Moses, administrative asst, Provost's Office. Rotch Library of Architecture & Planning, Rm 7-238. (Mon-Thurs 9am-8pm, Fri 9am-6pm). 253-9821

14-16 Mon-Weds

Chamber Music Society 5 & 7pm, Killian Hall.

15⁻Tues



The Silverwood Trio Cindy Woolley, soprano/flute; Walter Halvorsen, cello; Paul Hoffman, piano. Songs from Einstein's Dreams (2000), Hoffman's work based on Prof Alan Lightman's novel. 12noon, Killian Hall.

MIT Symphony Orchestra Dante Anzolini, director. Works by MIT student composers. 9pm, Kresge Aud.

17-18 Thurs-Fri

Black Theater Guild

Unfinished Women Cry in a No Man's Land While a Bird Dies in A Gilded Cage. \$3. 8pm, Kresge Little Theater. 253-2877

18 Fri

Student Recital

Tilman Bauer (G), piano. Haydn & Schumann. 7pm, Killian Hall.

Duo Erostrato

Narrator/actor Ricardo Dobles de la O, & guitarist Nuria Zuniga (profs at the Conservatorio de Castella, Costa Rica), perform fairy tales & verses. 8pm, MIT Chapel. Marco Pravia, praviam@mit.edu

MIT Museum, 265 Mass Ave. Abbreviated hours due to construction: Tues-Sun 12-5pm. \$5; \$2 students/srs; \$1 children 5-18; free w/MIT ID. 253-4444

MIT TECH TALK **7**

Potluck Performance Art Party

AKA show+tell. Bring video, poetry, slides, anything to read, show, perform &/or consume. Sponsored by MIT Electronic Research Society. \$4 donation requested for selected charity; free for artistic/gustatory contributors. 9pm, Rm N52-115. 253-2060

19 Sat

Islamic Art & Architecture Symposium on Exploring the Frontiers of Islamic Art & Architecture. 9:30-6pm, Rm 56-114. 253-1400, akpiarch@mit.edu

20 Sun



Women's Chorale Nancy Kushlan Wanger, director, Porpora's Magnificat, Japanese folk songs & works by Poulenc, Rutter & Copland. Reception follows. Children, accompanied by adults welcome. 3pm, Killian Hall. 484-9337

21 Mon

Compton Opening

Beyond Appearances: Imagery in Science at the Millennium. Photographic, digital & diagrammatic images from a broad spectrum of scientific endeavor & discovery. Compton Gallery (Rm 10-150), Weekdays 9am-5pm. 253-4444

22 Tues Staff Reading



Artists Behind the Desk Literary Arts: Andrea Cohen, communications mgr, MIT Sea Grant, reads from new manuscript, Long Division. 5-6pm, Rm 7-338 (Stella Rm). Email abdesk@mit.edu

31 Thurs

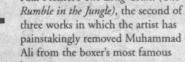
Exhibit Closes

A Photographic Odyssey: Architecture & Space 2001. Photos by T. Luke Young. Rotch Visual Collections, Exhibit cases outside Rm 7-304. 253-7098

All events are free unless prices are noted. All concerts: 253-9800 unless otherwise noted MIT Arts Hotline: 253-ARTS MIT Arts Web; web,mit,edu/arts Month-at-a-Glance is produced by the MIT Office of the Arts (253-4003) All MIT phones are in area code 617.

Strobe Alley

Never Stop Learning: The Life & Legacy of Harold Edgerton. Bldg 4, 4th fl corridor. 253-4629











bouts.

Johan Grimonprez's Inflight is a spin-off of the airline magazines found on commercial flights.



Race In Digital Space, presented in conjunction w/a conference on race & technology at MIT, features the work of over 30 artists using film, video, new media, & web techniques.

MIT Museum

days. 253-4680

Hours: Tues-Thurs & Weekends

12-6pm; Fri 12-8pm; closed holi-

Robots & Beyond: Exploring Artificial Intelligence at MIT; Thinkapalooza; Gestural Engineering: The Sculpture of Arthur Ganson; Holography: The Light Fantastic; Flashes of Inspiration: Life & Work of Prof Harold ("Doc") Edgerton.



Hart Nautical Gallery

Deep Frontiers: Ocean Engineering at MIT. Latest advances in underwater research. Ship Models: The Evolution of Ship Design. Hart Nautical Gallery, 55 Mass Ave. Daily 9-8pm. 253-5942



Object of the Month: Nighttime Aerial Reconnaissance Photography, World War II. Prof Harold Edgerton's airplane-mounted flash lamps filled a vital need for allied intelligence in WWII. Hallway exhibit case across from Rm 14N-118. 253-5136

Rare and "Special" Books at MIT: Dampf & Elektricität: die Technik im Anfang des Zwanzigsten Jahrhunderts... (Leipzig, ca. 1900). First in a series of exhibits. Hallway across from the NE corner of Killian Hall. 253-5136

United Trauma Relief organizer wins award

TRUMAN PROGRAM

(continued from page 1) enue for MIT students to engage inequality directly by working towards active redistribution initiatives.

"Our initiatives are unlike simple fundraising or donation efforts in that we get to know the problems closely and specifically tailor our assistance, with the cooperation of groups like Médicins Sans Frontières (Doctors without Borders) and the International Red Cross, who have years of expertise in the areas we address.'

UTR focused on Haiti to start its AIDS drug redistribution project because that country is the site of the HIV Equity Initiative, a project headed by the physicians' group Partners in Health, a leader in AIDS treatment.

"Hopefully, we will soon have a large enough stock of pills to branch out to Africa," said Mr. Basu, who also founded the MIT Journal of Undergraduate Research. "Already, one of our advisors has contacted a group in Tanzania that may serve as our next potential site of redistribution." Another future project involves sending food to Sudan for famine victims and prosthetics to Sierra Leone for people who lost limbs in the war.

Other MIT students involved in UTR include Nathan Wilson, a graduate student in brain and cognitive sciences; Vinod Rao, a junior majoring in biology; Catherine K. Foo, a junior majoring in electrical engineering and computer science; Julia R. deKadt and Sudeb Dalai, both juniors in brain and cognitive sciences; and freshmen Christine M. Ortiz, Nnennia L. Ejebe and Parul Deora. More information about UTR is available at <http:// web.mit.edu/utr/www>

Congress created the Truman Scholarship program in 1975 to honor the 33rd president of the United States. Scholarships are awarded each year to juniors who show academic promise, a sense of community responsibility and a commitment to a career in government or the not-for-profit sector.

The 2001 scholars were selected by 19 independent panels on the basis of leadership potential, intellectual ability and social commitment. The panels typically include a university president, a federal judge, a distinguished public servant and a past Truman Scholarship winner. Each panel interviewed candidates from a three- or four-state region and generally elected one scholar from each state and one or two at-large scholars from the region.

Assistant Professor of History Meg Jacobs, MIT's faculty representative for the Truman Scholarship program, said, "Sanjay is an exceptional student. Not only has he excelled in his academic career-he sees the importance of connecting his technical training to broader social issues. I have no doubt that Sanjay will help transform the world of public health.

The Truman Scholars will assemble May 20 for a weeklong leadership development program at William Jewell College in Liberty, MO, and receive their awards in a special ceremony at the Truman Library in Independence, MO on May 27.

Previous Truman Scholars from MIT have included Edward Migel of New Jersey in 1995, Jacob Orenstein-Cardona of Puerto Rico in 1997 and Monisha M. Merchant of Lakewood, CO in 1998.

An Aramark worker at the Odyssey Ball staffs the "candy bar" with hologram candy and an astronaut mannequin. Photo by Donna Coveney

Hundreds throng to Odyssey Ball

(continued from page 1) David Bliss (SM 1981).

Ms. Wang said Peter insisted on renting the hat and cane along with his tuxedo. "At the ball we saw one student there with a monocle and Peter said, 'Next time we have to get the monocle, too.""

Dawn Ash, a junior in linguistics, finally had the opportunity to wear her Star Trek: The Next Generation uniform. "I got this years ago at a convention," she said about the shirt, the characteristic black and red, color-blocked uniform worn by many of the officers on the TV show. She happily demonstrated the communicator badge attached to the left upper area of her uniform, which, when touched, played a tinny rendition of the musical tones used by crew members on the USS Enterprise to initiate remote communication. Ms. Ash had loaned a (silent) communicator badge to her friend, Alex Vasile, a junior in electrical engineering and computer science, who was dressed in more traditional attire.

Jewish Chaplain Miriam Rosenblum attended the ball with her husband, Sheldon Benjamin, and another couple. Ms. Rosenblum and Mr. Benjamin wore "deely boppers' on their heads from the 1982 Knoxville World's Fair. (Hers looked like antennae with red stars on the ends; his had purple orbs.) "These have been waiting in my closet for 20 years," she said. Their friends wore slightly intimidating but beautifully painted masks of red, gold and black purchased at a shop near Chinatown.

Jonathan Histon, a graduate student in aeronautics and astronautics, limped on crutches among the crowd. He had sprained his ankle the day before, but wouldn't let that stop him. "A very pretty lady promised me a dance earlier today. That's what got me here," he said. Another man on crutches hobbled by and yelled, "Hey, I like your accessories." When spotted later and asked about the promised dance, Mr. Histon said, "It was a swing dance. She swung and I stood there.'

Spotted wearing a light blue NASA flight suit and carrying a stuffed white monkey, also in a flight suit with helmet, was Samidh Chakrabarti, a senior in electrical engineering and computer science. He received the flight suit at a week-long simulated flight training school for high schoolers in Huntsville, AL. The monkey, named Captain Cornelius, was a gift from his friend Amitha Jagannath, a senior in biology, who wore festive attire to the ball. When a button on the monkey's hand is touched, it demands: 'Get me out of this monkey suit.'

Mr. Chakrabarti, the past president of Students for the Exploration and Development of Space, had some real zero-G experience in NASA's infamous KC-135 "vomit comet" airplane during his sophomore year.

Chef Peter Dumke was there in his own chef's hat; rather than costuming himself, he put his energy into creating spectacular desserts for the party-goers. His pièce de résistance-a chocolate mountain discharging "smoke" (actually dry ice vapor) from its crown, inspired by the Devil's Tower in the movie Close Encounters of the Third Kind-would have fueled even the most dedicated chocoholic for weeks. Mr. Dumke draped aluminum foil over a table and melted chocolate down the foil, then sprayed white chocolate lines (as in a Jackson Pollock painting) to resemble quartz seams running through granite. He placed large blocks of half-inch-thick chocolate sprinkled with marshmallows and nuts at the base of the mountain.

That was just one of the refreshment tables. Freezedried ice cream was available, but most people headed toward the more appealing desserts, such as cake dipped in an exceptionally sweet fondue. A large "replicator" built by students from the Musical Theatre Guild and the Student Art Association offered a choice of three small desserts: lemon meringue pie, flying saucer tart or space cupcake. The guest would use a mouse to choose a dessert and a "space server" would then wave the guest to the next window, where the dessert would appear. When asked what she thought of this gig compared to other party gigs, the server replied, "complicated."

President Charles M. Vest and his wife Rebecca Vest attended in black tie. He stood under a spotlight on the crowded dance floor to say just a few words to the students. "I'll save the long speeches for graduation," he deadpanned.

Dr. Vest spent more time on the parquet dancing with a group of students, one of whom wore Spock ears. When told he might read in the campus newspaper that he had been spotted dancing beautifully among the students, Dr. Vest quipped: "I certainly hope not. I believe in adherence to the truth.'

Panelists explore lessons to be learned from Lee case

(continued from page 1)

was there for political purposes." But the Lee case, he said, did not have to fuel Cold War II-a standoff between the United States and China like the one between the US and USSRdespite its potential for provoking anti-Chinese sentiment and policy.

"This is a long-term danger we must oppose. We don't have to give in to this 'mysterious enemy," Professor Morrison said. He also noted differences between US-Soviet relations and US-China relations that made a Cold War II scenario unlikely.

Panelist Vernon Loeb, national security correspondent at the Washington Post, described himself as a "representative of the press decrying press leaks. In Wen Ho Lee's case, the leaks were damaging to him, to the nation, to the Department of Energy and to the national labs. Without the leaks, Wen Ho Lee would never have been charged with 'faux espionage.' No one in history had ever been charged with

was amended in 2000, it "unleashed the FBI.'

Ms. Kayyem suggested that Congress be banned from "fixing" anything for two years following an event like the Lee case; that the Justice Department and the FBI "go after their own people for leaking"; and that the "communications gap between the civil liberties community and the national security community" be addressed.

Paul Watanabe, co-director of the Institute for Asian-American Studies, and professor of political science at the University of Massachusetts in Boston, focused on the political uses of the Lee case to "discipline those who think they have it made and to generate uncertainty and vulnerability in the Asian-American community."

He outlined a pattern of anti-Asian racial sterotyping and of prejudice. "This notion of perpetual foreignness has political, economic, cultural and social exclusion [built into it]. But what kind of society do we want to secure?" he asked.

ATO apologizes for racial remarks

for the incident. We acknowledge the

express deep-seated sentiments to all in the MIT community and we look forward to doing our part to rectify this situation in a swift and fair manner."

(continued from page 1) move them from our membership. We which precipitated this incident can invade our collective soul and destroy our ability to pursue our mission of learning, growth and leadership. No one at MIT, and certainly no one visiting us, should ever be subjected to such virulent and thoughtless abuse.

doing what he did. Under the pressure of the glare of publicity, the FBI could not add up facts and draw any conclusion other than espionage."

Juliette Kayyem, executive director of the Executive Session on Domestic Preparedness at Harvard's John F. Kennedy School of Government, suggested that the educational lesson to be gleaned from the Lee case was the likelihood of more such cases, thanks to a change in the Foreign Intelligence Surveillance Act (FISA) that widens the justification for electronic surveillance to include an individual's actions of 20. 30 or 40 years ago.

The law's new version generally feeds the fears of "foreign threats, stateless persons, terrorists and spies" that have "captivated the national imagination," she said.

The FBI's first requests to place Mr. Lee under surveillance were denied by the FISA court as inadequate, Ms. Kayyem said. Once FISA

Steven Aftergood, director of the Project on Government Secrecy at the Federation of American Scientists, used his time to credit the few heroes in the Wen Ho Lee case. He noted the examples of "a handful of senior independent scientists; Mr. Lee's energetic, competent attorneys; Judge Parker, who reconsidered all the evidence, changed his mind, released Mr. Lee and apologized; and two newspaper reporters, including Mr. Loeb. The Internet was kind of a hero, too, in that it allowed supporters to strategize and fundraise for Mr. Lee's defense."

Mr. Aftergood, summarizing the educational lessons of the case, said, "The government can get it very badly wrong. We need to strengthen the corrective mechanisms for when the government goes astray. And we must not prejudge an individual's case based on what the government or the media say."

embarassment that this incident has brought to the MIT community and are working, both among ourselves and in conjunction with the leaders of the campus community, to demonstrate that this fraternity does not promote or tolerate what happened on Friday.

"We apologize to all individuals offended by the words containing racial elements spoken from our roof. The statement in question was undeniably derisive, but it was not meant to be a personal attack. Still, as a racially diverse brotherhood on campus, the member should have known such a statement is very emotionally charged. We fully understand how the statement was construed as racially offensive. We apologize that these words from the mouth of one of our brothers could make anyone in the MIT community uncomfortable or angry.

"We have already begun taking judicial action against the members involved and are moving quickly to re-

It was signed by Erik M. Glover, president of the Beta Gamma chapter of Alpha Tau Omega.

President Vest wrote in his Saturday statement, "Yesterday an ugly and totally inexcusable incident occurred on our campus. It both angers and saddens me, and it will not be tolerated.

"Totally offensive racial epithets were reliably reported to have been shouted at visitors to our campus from the roof of the Alpha Tau Omega house on Amherst Alley. A serious incident of physical scuffling followed. Professional work by our campus police as well as intervention by others prevented this from becoming an even more damaging matter.

"Our community draws strength and joy from its diversity in many dimensions, including that of race. But mean-spirited behavior such as that

'Race in America remains a troubling matter, but we look to the leadership and good will of talented young men and women who are privileged to be part of great institutions like MIT to move us beyond this and improve our world. It therefore is doubly disturbing that such behavior would occur among us. We must be a place of tolerance and community.

"MIT's administrative, faculty and student governance systems will deal swiftly and fairly with those responsible for this event. But we all must move equally swiftly to pull together, to learn the lessons of this matter, and to work together in mutual respect and common purpose to live up to our potential as friends, colleagues and leaders."