



**URBAN AIR RESEARCH**—From left to right, Xudong Huang and Michael Ames, graduate students in nuclear engineering, and Ilhan Olmez, senior radiochemist at the Nuclear Reactor Lab, adjust the controls of an apparatus they are using to collect motor vehicle emissions. The resulting data could help scientists track car emissions in urban air around the world.

Photo by Donna Coveney

# Team Seeks New Emissions Marker

# By Elizabeth A. Thomson News Office

A car, a tent and a large flexible tube connecting the two by the muffler make up the visible parts of the apparatus Ilhan Olmez and Xudong Huang are using to collect motor vehicle emissions in a study to help scientists track car emissions in urban air around the world.

IN BRIEF

MIT: Shaping the Future

SIGN OF THE TIMES

You will be seeing this logo popping up frequently this spring: it's the signature of activities associated with the inauguration of Dr. Charles M. Vest as 15th president of MIT. The inauguration itself is scheduled for Friday, May 10, but activities in celebration of the new president will take place throughout the spring and extend into the fall. For years researchers determined the contribution of motor vehicle emissions to the urban atmosphere by analyzing the amount of lead in the air from leaded gasoline. But with the switch to unleaded gas, scientists lost their marker. "Right now we are not able to accurately calculate how much motor vehicles are contributing to our air," said Dr. Olmez, a senior radiochemist at the Nuclear Reactor Lab.

And that data is important to health professionals and regulatory agencies, especially in cities like Los Angeles where car emissions are major contributors to smog.

So Dr. Olmez and Mr. Huang, a graduate student in nuclear engineering, are using MIT's research reactor to

**CECI to Succeed Athena** 

NEW UMBRELLA

By Robert C. Di Iorio

News Office

find a new marker. Specifically, the two are using a technique called neutron activation analysis to determine the composition of today's motor vehicle emissions, in particular the inorganic elements present and their concentrations. With those data they can find a marker.

A good marker, said Dr. Olmez, will be an element or combination of elements emitted in relatively high concentrations that stays around in the air for a while. He believes that the eventual marker will actually come from a car's catalytic converter rather than gasoline. "Unleaded gasoline emits organics that are not useful for tracer purposes because they change their (continued on page 5)

# <sup>4</sup> FROM MIT NAS Ethics Panel Expects Report in Fall

A midst the swirl of several continuing scientific controversies and investigations, a National Academy of Sciences panel met Monday and Tuesday to develop an effective method of self-governance of science.

"We are examining steps that can be taken to reinforce the integrity of science," said Dr. Edward E. David Jr., chairman of the NAS panel and former science advisor to President Richard M. Nixon in an interview Friday with MIT Tech Talk. "We may not have the complete answers, but it is very important that the science community maintain its customary self-governance."

He said the committee, the Panel on Scientific Responsibility and the Conduct of Research, known as the ethics panel, hopes to have a final report in December.

According to a news report in The New York Times Thursday, the panel is considering a body outside of academic centers to write model standards for the investigation of suspected misconduct, to keep track of how much misconduct is reported and how it is handled. Dr. David was quoted as saying, "We must assure the people who pay for the work, such as Congress, that there is some reason to believe we are doing things right, and that we are not cheating."

Dr. David said Friday that the panel will "not necessarily recommend an outside group" and that the final report "will be the work of the entire committee." He said the panel was considering courses in ethics and scientific conduct for science students.

On the subject of investigating suspected or reported misconduct, Dr. David told the Times, "Some [universities] have had more success than others, but their performance has not been sparkling overall. We need, therefore, to be sure the mechanisms are in place to handle cases of this kind in a fair and equitable way. First of all, mechanisms for the reporting of misconduct, to protect the whistle-blowers, as well as the privacy of people involved."

The Times said the panel was considering having universities take steps to reduce the pressure on scientists to publish papers and get grants. Dr. David said the rules for tenure might require that only a small number of a scientists' best papers would be considered, rather than the overall number of scientific papers.

The Times reported that Dr. David, commenting on "Why is all of this happening?," said: "Cause and effect is not easy to establish, but a lot of things are different today than they were 20 years ago, when I was active in science. The pressure to achieve tenure, to bring in grant money is much more profound today. Also, the number of researchers has increased."

Dr. Frank Press, president of the NAS, told The Times, "Everyone wants to do something about this without having to send inspectors into every lab to check the day's entries in the notebooks." Dr. Press is a member of the MIT Corporation.

Dr. David, the former chief of the Bell Labs, is a member of the tenperson Executive Committee of the MIT Corporation and received his SM and ScD degrees in electrical engineering from MIT in 1947 and 1950.

The NAS committee, Dr. David said, includes a broad membership ranging from "a whistle-blower and young researchers to old codgers like me."

(continued on page 5)

## LETTER TO COLLEAGUES

# Misconduct Review Ongoing, Vest Relates

IT President Charles M. Vest M announced March 21 that MIT's procedures for dealing with allegations of academic misconduct are being reviewed. Further, he urged faculty members to develop a career guidance program for faculty members, embracing "the essence of scholarship and research, namely objective methodologies and attitudes that demand the pursuit of truth with integrity and ethical rigor." Dr. Vest, in a letter to research and teaching colleagues, said such a program "would be broadly designed to provide career guidance and mentoring to all members of our faculty and research community."

level to design specific procedures to foster academic integrity and to deal with concerns regarding appropriate academic behavior.

"These events move me to com-

### **NO TECH TALK**

Tech Talk will not be published April 17 because of the Patriots Day holiday. The Institute Calendar next week will cover the period April 10-28. Deadline for listings in the Calendar, Institute Notices and Classified Ads will be, as usual, noon Friday, April 5.

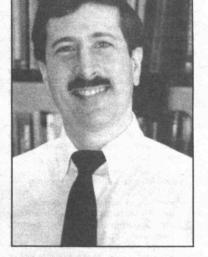
## REMINDER

Friday, April 5, is the deadline for applications for the Johnson Games on Saturday, May 4. Return applications to the Games Committee, Rm 3-203. M IT will continue its Project Athena-inspired activities at the frontier of educational computing research under a new umbrella—the Center for Educational Computing Initiatives (CECI).

The center will pursue many initiatives launched under Project Athena and also strike out in new directions, says Professor Steven R. Lerman of the Department of Civil Engineering, who directs the new center.

Professor Lerman, appointed by Provost Mark S. Wrighton, will also chair the Academic Computing Council to be established by the provost who will announce appointments next month. The council will be a focal point for the educational computing needs of the faculty, Professor Lerman said.

Professor Lerman, who was Project Athena's first director (1983-88), has been interested in educational computing for several years. He also is director of the Intelligent Engineering Systems Laboratory in the Department of Civil Engineering.



#### **Professor Lerman**

The laboratory's interests dovetail with the goals of academic computing research: Find ways to use multimedia computer environments, communications, artificial intelligence and graphics technologies to improve quality and *(continued on page 5)* 

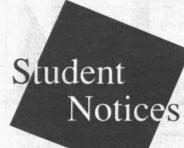
#### Dr. Vest wrote:

"The news regarding the draft report of the NIH committee investigating alleged scientific misconduct within an MIT laboratory once again brings into focus a painful series of events involving our colleagues, our institution, the public perception, and our relations with the federal government. I have asked a small group of faculty and administrators to look into our procedures for dealing with allegations of academic misconduct. In addition, there are efforts ongoing at the departmental municate briefly with you now on a topic that I had planned to discuss in more detail later in the term. My comments are intended to address a broad and long-range issue and in no way to imply any judgment on the events immediately before us.

"For generations, science has stood as a brilliant example of a field of human endeavor that requires and promotes the fullest measure of integrity. We consider it so obvious and systemic that we may inadvertently neglect to explicitly transmit this central part of our culture to the next generation. MIT must take a leadership role in promoting these values and methodologies.

"... We have a responsibility that is even more profound than the development and transmission of knowledge. That responsibility is to pass to new generations the essence of scholarship and research, namely objective methodologies and attitudes that demand the pursuit of truth with integrity and ethical rigor.

(continued on page 5)



\* -Open to public \*\*-Open to MIT community only \*\*\*-Open to members only

## ANNOUNCEMENTS

- Theses Workshops on the Mac\*\*-Through May 1: Free workshops for seniors and graduate students who are using the Macintosh computer to prepare their theses, sponsored by Information Systems. Wednesdays, 5-7pm, Rm 11-206.
- Booksale\*\*-Apr 19: Booksale sponsored by the MIT Libraries, 11:30am-2pm, basement of the Hayden Library (outside the library storage facility in building 14S). Next sale will be May 10, same time & location as above. Books from a variety of subject areas will be included. Open to the MIT community only.
- Tech Model Railroad Club Meeting\*-Apr 6: "Freight-Only Operations," 8pm, Rm 20E-214
- Free Museum of Science Admission for MIT Students-With MIT student ID, provided by Mass Beta chapter of Tau Beta Pi, the National Engineering Honor Society. Reduced admission to special exhibits.
- MIT Student Furniture Exchange\*\*-great bargains, used furniture and more, Tues/Th, 10am-2pm, 25 Windsor St (MIT Museum bldg, 1st fl). Donations welcome. x3-4293.
- Arts Hotline-Recorded information on all art events at MIT may be obtained by dialing x3-ARTS. Material is updated every Monday morning.
- Nightline\*\*-a student-run campus hotline open every evening of the term, 7pm-7am. If you need information about anything or you just want to chat, give us a call. We're here to listen, x3-8800
- Hosts to International Students Program-MIT Women's League program to host foreign students coming to MIT for the first time Provide a welcome, occasional hospitality and friendship. All financial and academic problems handled by specific MIT offices. Info/volunteer forms: Kate Baty, 861-6725 or Pam Daveta, x3-3656.
- MIT Language Conversation Exchange\*\*-Medical Dept program to assist members of the MIT community to practice a language with a native speaker. Applications accepted throughout the year. To exchange English or another language and be matched with someone with your interests, call the secretary of the Language Conversation Exchange, x3-
- MIT Strategic Games Society\*-The club for miniatures, war games, role playing, fantasy, and sci fi. Meets every Friday 9pm-12am, every Saturday 1pm-12am, Walker Memorial, 3rd fl. Info, Gary Quick x5-7174.
- MIT Table Tennis Club\*\*-Meets Fri 8-10pm, Sat 6-9pm, T Club Lounge, DuPont. Every one welcome. Info: David Marcus 492-4317.
- Tech Model Railroad Club\*\*-New members always welcome. Meets Sat, 6pm, Rm 20E 214. Call x3-3269.

## RELIGIOUS ACTIVITIES

## **STUDENT JOBS**

Chinese Christian Fellowship\*-Join us for a

discussion of what loving God practically means in our daily lives, Wednesdays 7-9pm. All English-speaking undergraduate and

graduate students are welcome (you don't have to be Chinese!). Investigative Bible

discussion is also offered at the same location

and night, 7:30-8:30pm. For location and further info contact Carl Lim x5-7508.

monthly lunch and discussion on God and

Christians at MIT with your fellow faculty.

staff, administrators, and grad students. Info:

for the ministry of Campus Crusade for Christ.

Wind up the week: relax, snack, sing, laugh

through skits and gain practical insight from

God's Word. Meets Friday 7:17pm, Student

meetings. Join us for a time of worship, prayer, and Biblical teachings, Fridays

United Christian Fellowship\*\*-Large group

Christian Science Organization at MIT\*-

Graduate Christ Fellowship\*\*-Come join other grad students, faculty and staff in learning

John Keen x3-7706, Dave Otis x3-2198

MIT Orthodox Christian Fellowship\*\*-The

newly formed MIT OCF will meet every

other Monday night at 8pm in the MIT Chapel.

Vespers (Evening Prayer) will be followed by

Fellowship/Discussion. Open to Orthodox

Christians and those interested in learning

about the ancient Christian Faith. Info: Arlene

Church of Jesus Christ of Latter-day Saints

Student Association at MIT\*-Sunday

services, Cambridge University Ward, meets

every Sunday 3-6pm at the Cambridge Chapel,

corner of Brattle Street and Longfellow Park.

Meetings are for students and young single

& dinners available from the MIT Kosher Kitchen, Walker 50-007, call x3-2987 for

MIT Hillel\*-Through Apr 6: Passover lunches

MIT Islamic Society\*-5 daily prayers in the

Lincoln Laboratory Noon Bible Studies\*-Tues

Lutheran Ministry and Episcopal Ministry\*\*-

MIT Vedanta Society\*-Meditation and dis-

prayer room, Ashdown House (Bldg W-1) west bsmt. Friday congregation: 1:10-1:45pm

in Ashdown House (Bldg W-1) west bsmt.

& Thurs, Kiln Brook III, Rm 239. Annie

Weekly Service of Holy Communion—Wed, 5:10pm, MIT Chapel. Supper follows at 312

Memorial Drive. For further info, call x3-

course on the Bhagavad Gita, Swami

Sarvagatananda, MIT Religious Counseler.

Classes held Fridays 5:15pm, MIT Chapel.

The Writing Prizes. Cash prizes awarded in each

category: fiction, short story, poetry, drama,

essay, scientific and engineering writing,

science writing for the public. For applications

and guidelines contact The Writing Program,

MIT Japan Science and Technology Prize.

The MIT Japan Program is now accepting

applications for this award, which is made

possible by the Japan-U.S. Friendship

Commission, It will cover airfare and local

expenses for the winner to attend a pro-

fessional meeting in Japan during the 1991-

92 academic year. Applications require a

letter of recommendation and a brief essay

the meeting the applica

Rm 14E-303. Deadline: Apr 11.

schedule. More info: x3-2982.

Lanciani Marge x3-3555.

adults

Info: x8-9755.

2325/2983.

Lescard, x2899 Linc.

OPPORTUNITIES

Weekly Testimony meetings, Thurs, 8pm,

about and growing in the Christian faith. Ac-

tivities open to both Christians and those inter-

ested in learning more about Christianity. Info:

MIT Christian Community\*\*-Come and join

MIT Christian Impact\*-The weekly meeting

Park x3-2875.

Ctr. 3rd flr.

7pm, Rm 6-321.

MIT Chapel.

There are more job listings available at the Stu dent Employment Office. Rm 5-119. The Student Employment Office has many "one time only" jobs. Many students find these jobs a good way to earn money fast.

- On Campus, Non-Technical. Physical plant is looking for ten students to help with arrangements for the inauguration. Position lasts from April 29 to May 10. 5 students needed for the 4 to midnight shift and 5 students for the midnight to 8am shift. Salary: \$7/hr Contact: Kim LaPaerre at x8-5457, E19-210.
- Off Campus, Non-Technical. Law firm needs part-time technical support to assist with ongoing automation efforts on a 386-based LAN Knowledge of Word-Perfect a must. Novell (netware), Paradox and Lotus experience desirable. Hours: 10-15/week. Send cover letter and resume to Kenneth Ernstoff. Sugarman, Rogers, Barshak & Cohen, 33 Union St., Boston, MA 02108-2406.
- Off Campus, Non-Technical. Library Assistant. Very light office work and typing. Article retrieval from MIT libraries. Contact: Colleen Maloney at 225-6000, x5053. Address: Repligen, 1 Kendall Square, Cambridge MA.
- Off Campus, Technical, Programming, UNISYS currently has an opening for a sophomore to work as a Computer Operator/ Junior Programmer to monitor operations, correct problems and evaluate performance on a 3 shift, 7 day/wk Apollo system. Additional tasks include programming, data analysis, system testing and data entry. Knowledge of Pascal a plus. Please send resume to Jeanne Cole, Unisys Corporation, 55 Broadway Bldg. #3, Cambridge MA 02142.

#### VOLUNTEERS

The MIT Public Service Center has compiled the following volunteer opportunies.

- Road Race. The Cambridge Council on Aging is hosting a five-mile walk/run race on Sunday, April 7. The race will be held at the Cambridge Fresh Pond Reservoir. Volunteers needed to get pledges for the race. For information on how to register, call Sandy Kahn at 349-6220.
- Old South Church. The Old South Church in Boston is renovating a townhouse for lowincome housing. Groups of 7 or more volunteers needed to work weekends now through June. Call Elisa Blanchard at 536-1970.
- Renovate Brighton High School. The Sterling Community Service Foundation is organizing a special cleanup/renovation project at Brighton High School on April 5 and 6. Volunteers are needed to prepare the site for about 500 people who will be working in late April and early May. Brighton High is T accessible. For more info or to volunteer contact Russell Pratt at (508) 582-9038 or Joanne Broadbent at 731-4585.

#### UROP

MIT and Wellesley students are invited to join with faculty members in pursuit of research projects of mutual fascination. Spring term projects are now posted on the bulletin boards in the infinite corridor by the Admissions Office and in our office. For further information, read details on procedures in the participation section of the directory.

Faculty supervisors wishing to have projects listed should send project descriptions to the UROP office. Questions? Contact UROP at x3-7306, 20B-140.

Summer is almost here! The deadline for sun UROP proposals requesting full or partial funding from UROP is April 17, 1991. UROP proposals wherein faculty supervisors are providing all of the student summer stipend should be submitted hy May 31, 1991. Proposals must be submitted at the UROP office at 20B-140. Detailed information are posted on the UROP bulletin board in the infinite corridor

## PUBLIC LECTURE

# Looking Back on Space

ooking back from the future will be the theme of Norman R. Augustine, chairman and CEO of Martin Marietta Corporation, when he delivers the second annual MIT Space Grant Program public lecture, "The US Space Program Viewed from the Year 2020 With 20-20 Hindsight." He will speak Wednesday, April 10, at 2pm in Rm 26-100.

As the US space program enters the last decade of the millenium, it is at a crossroads, says Mr. Augustine. Projects taking as much as 30 years have been proposed-efforts that will require the support of perhaps eight presidential administrations, 15 Congresses, and 30 Federal budget cycles. In light of these formidable hurdles, Mr. Augustine will advocate clear-cut goals and answers to key technical/ policy questions, such as the role of human beings in space.

Mr. Augustine was born in 1935 in Colorado and attended Princeton University, where he majored in aeronautical engineering. He holds honorary Doctor of Engineering degrees from

ated with a position sensing system. The project involves: (i) checking an existing analog/digital circuitry and building new analog/ digital circuitry, (ii) incorporating a Digital Signal Processing board as part of the overall system, (iii) programming and testing. Position available for either credit or pay. It is expected that the candidate will work through the end of the summer of 1991. Project requires knowledge of analog and digital circuits and programming skills such as C-Language. Faculty Supervisor: K. Youcef-Toumi, 35-233, x3-2216.

Off Campus Summer UROP in Clinical Study. Summer position available for undergraduates interested in medical measurement technolo gies, clinical research, and virtual reality experimentation and development. One project is to assist in conducting a clinical study of the ac curacy and repeatability of new computerized hand evaluation and rehabilitation system. Students will be involved in some or all of the following: the actual data collection in a clinical setting within the Harvard Medical School environment, laboratory studies and cadaverid specimens, and data analysis and report presentation. Two positions are anticipated. Send resumes to: EXOS, Inc., 8 Blanchard Rd, Burlington, MA 01803. Co-supervisors: Dr. Beth Marcus, EXOS, Inc., 229-2075; Prof. Nat Durlach, MIT EECS 36-709.

Off Campus Summer UROP in Clinical Research. Summer position available for undergraduates interested in medical measure ment technologies, clinical research, and virtual reality experimentation and development. This project is for the development of a demonstration of the Dexterous Hand Master hand measurement device in conjuction with the Private Eye virtual display for a simple task in a PC environment. Students must be familiar with Microsoft C, low level routines, and graphics. This project will be conducted entirely by the student hired and is potentially suitable for an S.B. thesis. Send resumes to: EXOS, Inc., 8 Blanchard Rd, Burlington, MA 01803. Co-supervisors: Dr. Beth Marcus, EXOS, Inc., 229-2075; Prof. Nat Durlach, MIT EECS 36-709.

Summer UROP in Econometrics. Seeking students to work on models of irreversible investment. Students should have some knowledge of econometrics, computer programming, numerical methods, especially for solving ordinary differential equations. Faculty supervisor: Prof. Robert Pindyck, E52-454, x3-6641.

Rensselaer Polytechnic Institute and Western Maryland College, and an Honorary Doctor of Science degree from the University of Colorado.

Mr. Augustine has worked for many aerospace companies in his career, and has been both an assistant director of Defense Research and Engineering in DOD and an Under Secretary of the Army. He has been president of the 40,000 member American Institute of Aeronautics and Astronautics, has been elected to the National Academy of Engineering and the International Academy of Astronautics, and has four times been awarded the Department of Defense's highest civilian decoration, the Distinguished Service Medal.

Mr. Augustine is vice president of the Boy Scouts of America and has served on a state board of the minority INROADS program. He is co-author of The Defense Revolution and Augustine's Laws, which has been printed in English, German, Italian, and soon Russian. Among other curiosities, he holds a copyright on a calculator for baseball managers.

faculty supervisor to nominate you. The deadline is April 22, 1991. Contact: Norma McGavern, 20B-140, x3-7909.

Biomedial Research. UROP student needed now with the possibility of becoming a full time technologist during the summer in the field of biomedical research. The project involves characterization of contrast agents for Magnetic Resonance Imagining. Specific experiments include relaxation time measurements, hysteresis measurements, synthesis of inorganic compounds. Students with chemistry, material science background, and interested

## CABLE

For more information call Randy Winchester at x3-7431

- April 3: Channel 8: 11am-12:30pm-Live coverage of the MIT Optics and Quantum Electronics Seminar: "Quantum Noise Squeezing at Microwave Frequencies," B. Yurke, AT&T Bell Laboratories.
- April 8: Channel 8: 4-5:30pm—Live coverage of the MIT EECS Colloquium Series, "Multiresolution Signal Analysis: Is it the Wave(let) of the Future?" A. Willsky, MIT.
- April 9: Channel 8: 4-5:30pm-Live coverage of the MIT VLSI Seminar.

April 10: Channel 8: 11am-12:30pm-Live coverage of the MIT Optics and Quantum Electronics Seminar, "Fiber in the Loop," P. Shumate, Bellcore.

## MIT TECH TALK (USPS 002157)

April 3, 1991 Volume 35 Number 27

Publisher KENNETH D. CAMPBELL

> Editor JOANNE MILLER Assistant Editor

ELIZABETH THOMSON Photojournalist

DONNA COVENEY

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

Baptist Student Fellowship\*\*-Weekly Worship and Bible Study each Tuesday at 6pm in the chapel; snack supper fellowship immediately preceding at 312 Memorial Drive, 5:15pm. Graduate Student Study every other Thursday at 1pm, 312 Memorial Drive. Info x3-2328.

Morning Bible Studies\*\*-Fri, 7:30-8:30am, L 217. Ed Bayliss, x3456 Linc.

Noon Bible Study\*-Every Wed, Rm 1-132, bring lunch. Ralph Burgess, x3-8121. (Since 1965.) (Graduate Christian Fellowship.)

MIT Bible Study Group\*-The Economy of God, a look at God's eternal purpose to dispense Himself into man based on the revelation of the Bible, Fri, 8pm, Student Ctr Rm 407. Singing, prayer, Bible reading, fellowship.

Tech Catholic Community\*\*-Masses: Sat, 5pm; Sun, 10am & 5pm. Tues & Thurs. 5:05pm, Fri, 12:05pm, MIT Chapel. Info x3-2981

attend and why. All MIT graduate students currently enrolled in science and engineering departments are eligible to apply Applications and further information may be obtained from Cornelia Robart, E38-700, x3-2839. Deadline: Apr 19.

Jeffrey L. Pressman Awards. The Department of Political Science announces the Summer 1991 Pressman Awards for Research, Travel or Internship in American Law, Government, or Politics, All members of MIT Classes 1992 and 1993 are eligible. Several stipends (maximum \$2000 each) will be awarded to students for use during the summer to undertake a special projuct in American government politics. The project should focus on some legal, political, institutional, or policy issue. Rules and guidelines available from the Political Science Undergraduate Office (E53-460, x3-3649). Deadline: Apr. 19.

### ■ INTERNATIONAL

MIT-Japan Program. Go to Japan for a year of fun and excitement-all expenses paidwith the MIT-Japan Program. Further info: x3-2839

Mechanical Engineering Summer Project. A student is needed to design, implement, and perform experiments investigating heat transfer coefficients in a circulating fluidized bed (CFB) (a solid-gas mixture flowing in a vertical column). Existing CFBs will be fitted with heat generating surfaces, whose heat removal rate will be determined as a function of flow parameters. Familiarity with "nuts and bolts" assembly and basic machining is desirable. Faculty Supervisor: Prof. Leon Glicksman, 3-433, x3-2233; contact: Keith Woloshun, x3-7488.

Custom Integrated Circuit Development. The project involves the development of analog memories for use in front-end electronic systems to be used at RHIC (the Relativistic Heavy Ion Collider at Brookhaven National Laboratory. Long Island, NY). Student needed to test small prototypes which have been fabricated as CMOS integrated circuits. Duties will also include helping to construct and debug a test fixture for checking the performance of these analog memories. Good computer and documentation skills essential. Submit a brief resume to Bernard Wadsworth, 26-561; Faculty Supervisor: Prof. Robert Ledoux.

Digital Signal Processing Board. A student is needed to perform experimental work associ-

#### **UROP Summer Studies Program in Laboratory** for Computer Science. This summer program is intended for undergraduates who are interested in participating in research projects in the Laboratory for Computer Science. Al-

though no prior experience is necessary, pay is commensurate with experience, and the program is open to all undergraduates not currently or formally associated with the Laboratory. Students are expected to continue work in the Fall semester either for pay or credit. We hope to identify creative and energetic students interested in computer science and to encourage their development. An informational meeting will be held Wednesday, April 17, 1991, NE43-512a, 4pm. Faculty upervisor: Albert Vezza, NE43-103; contact: Leora Wenger, e-mail leora@hq.lcs.mit.edu.

Randolph Wei UROP Award. The Randolph Wei UROP Award is given each spring to the undergraduate who has made the most outstanding contribution in undergraduate research at the interface of the life sciences and engineering. The award is in memory of Wei, a member of the MIT Class of 1987, and consists of a cash award and certificate. Selection of the prize winner is dependent upon nomination by the student's faculty research supervisor. Don't be shy about asking your

Production GENEVIEVE PARENT OF MIT GRAPHIC ARTS

#### **News Office**

Director: Kenneth D. Campbell: Associate Director: Robert C. Di Iorio; Senior Assistant Director: Charles H. Ball; Chief Science Writer: Eugene F. Mallove; Assistant Direc-tors: Naomi F. Chase; Donna Coveney, Joanne Miller; Assistant Editor: Elizabeth A. Thomson; Administrative Assistant: Myles Crowley; Senior Staff Assistant: Lisa Damtoft; Receptionist: Cynthia Consentino

Tech Talk is published weekly except for most Monday holiday weeks by the News Office, Massachusetts Institute of Technol-ogy, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139-4307.

Postmaster: Send address changes to Tech Talk, Room 5-111, Massachusetts Institute f Technology, Cambridge, Massachusetts 02139-4307

Tech Talk is distributed free to faculty and staff offices and residence halls. It is also available free in the News Office and the Information Center.

Mail subscriptions are \$18 per year. Checks should be made payable to MIT and mailed to Business Manager, Room 5-111, MIT, Cambridge, MA 02139-4307. Second date

Second class postage paid at Boston. MA.

Permission is granted to excerpt or re-print any material originated in Tech Talk.

### CROWLEY NAMED

APRIL 3, 1991

# MIT to Open Office in Washington, D.C.

IT announced today that it Coalition for National Science Fund-W will open an office in Washington, D.C.

John C. Crowley, vice president of the Association of American Universities (AAU), will join MIT as special assistant to the president of MIT and director of the MIT Washington Office. In his AAU post, Mr. Crowley has specialized in science policy, especially research and advanced education.

The announcement was made by MIT President Charles M. Vest.

"Last October, when I first addressed a meeting of the MIT faculty, I talked about the need for developing enhanced approaches toward federal relations," said Dr. Vest, who became MIT's 15th president last fall. "I developed a sense of that need after a series of discussions with faculty that began in June 1990 after I accepted the MIT presidency," Dr. Vest said.

"The possibility that Jack Crowley could be available to serve MIT at this time has made my decision to go ahead with a Washington office an easy one. His impressive experience in the nation's capital will serve MIT and the country well," President Vest said.

The goal of the MIT Washington Office, President Vest said, will be to enhance the Institute's contribution to national policy on science, engineering and education, and to make it easier for government officials to consult with MIT faculty on issues where scientific and technical advice may be needed.

"An important aspect of Mr. Crowley's mission will be reaching out to policy makers in the legislative and executive branches of the government and in the national organizations asking how MIT can help them in their work," Dr. Vest said.

"From this focus on national service will flow improved opportunities to better inform the Congress, as well as Executive Branch agencies and other policy makers, about MIT's continuing contributions to the nation and the related concerns of the university.'

Mr. Crowley has received significant recognition for his public service contributions. In 1990 he was the recipient of the Mid-Career Award from the American Society for Public Administration for "exceptional achievement in Science and Government Cooperation" and for making "a significant contribution to national security." In 1988 he was elected a Fellow of the American Association for the Advancement of Science and cited for his "contributions to policy for research and higher education." He is past chairman of the Council on Research and Technology's Operations Committee and convener and steering committee chairman of the ing.

"The opportunity to serve President Vest and the MIT community in Washington is an honor indeed," Mr. Crowley said. "It also is an exciting challenge. My assignment for MIT builds on my experience as a member of the AAU staff, which under President [Robert M.] Rosenzweig's leadership, strives to serve its members and others in a spirit of public interest. President Vest's invitation to serve MIT in that same spirit of national service is a unique opportunity.

Mr. Crowley added: "I must express my deep gratitude to the AAU, to Dr. Charles V. Kidd, who in 1972 hired me as his assistant, and most especially to Bob Rosenzweig, my friend and mentor. I leave the Association staff but happily not my old friends and colleagues. In many ways, I'm only changing chairs at the table."

The MIT Washington office will be a resource to reinforce the relations between the university and the federal government.

Dr. Vest has frequently spoken about the importance to the nation of the American research university, pointing out that it has been the partnership with the federal government that has enabled this uniquely American system to develop and flourish.

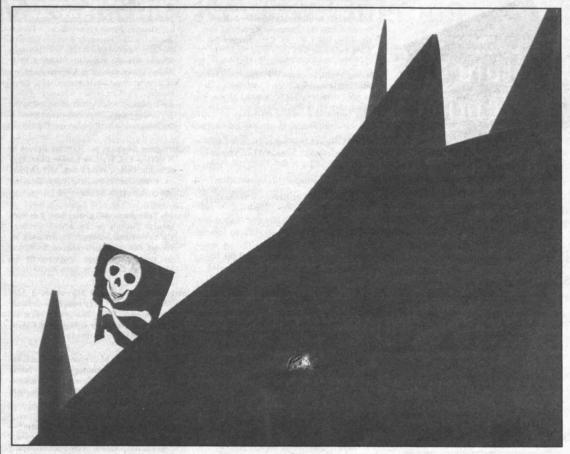
But in a speech last February to the councils of the National Academy of Sciences, the National Academy of Engineering and the National Science Board, Dr. Vest warned: "Today, however, there are breakdowns, or at least strains, in the system, and many of these strains are manifestations of tensions between the federal government and the research universities."

Mr. Crowley, 49, a native of Phelps, N.Y., joined the AAU in 1972 as assistant executive secretary. He became associate executive secretary in 1974 and director of federal relations for science research in 1977. He has been AAU vice president since 1986. The AAU currently consists of 56 American universities, including MIT, and two Canadian universities. All have strong programs of graduate and professional education and research.

Mr. Crowley holds the BS from St. John Fisher College, Rochester, N.Y., and the PhD and the MPA in public administration from the Maxwell School at Syracuse University.

Mr. Crowley will begin a full-time association with MIT in August. Starting immediately, he will devote one day a week to MIT activities as he concludes his relationship with the AAU.

Mr. Crowley will continue to make his home in Bethesda, Md., with his wife, Ellen. They have two children, Kathleen and Michael.



SAIL ON-A Jolly Roger adorned Calder's Great Sail in McDermott Court in honor of April Fool's Day Monday when, appropriately, Crazy After Calculus, the Museum's exhibit of classic MIT hacks, opened in Compton Gallery. **Photo by Donna Coveney** 

## INAUGURAL EVENT

# Panel to Discuss Technology Race

T he presidents of MIT, Rensselaer Polytechnic Institute and the National Academy of Engineering will join an MIT president emeritus and other MIT and Harvard colleagues April 9 to explore the question: "The Technology Race: Can the US Win?"

The event, starting at 3pm in Kresge Little Theater, is the first J. Herbert Hollomon Memorial Symposium. The symposium, presented by the Technology and Culture Seminar, will be the first of several "inaugural year" events at MIT where Dr. Charles M. Vest's installation as MIT's 15th president will occur May 10.

President Vest, who took office last October, will deliver opening remarks and introduce the panel members. They are:

-Harvey Brooks of Harvard, the Benjamin Peirce Professor of Technology and Public Policy and professor of applied physics, emeritus.

-Roland Schmitt, president, Rensselaer Polytechnic Institute (RPI). -Jerome B. Wiesner of MIT, Institute Professor emeritus and president emeritus.

-Robert White, president, National Academy of Engineering.

The moderator will be Daniel Roos, Japan Steel Industry Professor of Engineering and the director of the MIT Center for Technology, Policy and Industrial Development.

Among the issues the speakers will address are: How does a technology policy differ from a science policy and should the US have one? What are the

establishing the Institute of Applied Technology, the forerunner of the National Oceanographic and Atmospheric Administration.

In 1970 he returned to MIT where he had received the SB in physics (1940) and the ScD in metallurgy (1946). In 1972 he founded the Center for Policy

Alternatives which identified major socio-technical issues and the policies and practices surrounding them. In 1985 the center became part of the Center for Technology, Policy and Industrial Development.

A reception will follow the symposium. **Robert C. Di Iorio** 



**Professor Cima** 

## MARINE RESEARCH



**Professor Kytomaa** 

Two Win Doherty Chairs

# Inaugural Essays Invited

M embers of the community are invited to submit proposals for essays they would like to write on "MIT: Shaping the Future," commemorating the inauguration of Dr. Charles M. Vest as MIT's 15th president.

"The essays do not have to deal specifically with MIT, but should embody aspects of the general theme of visions for MIT and the world in the 21st century," according to the letter inviting proposals. "The essays are expected to be broad and wide-ranging, representing various fields and disciplines," the letter continues.

Proposals should be in the form of a topic title and brief outline and should be submitted to Professor Kenneth Manning, director of the Writing Program, Rm 14E-303, by Thursday, April 25.

The essays themselves-1,000-

5,000 words-will be due at the end of June so that they may be edited over the summer. The publications subcommittee of the Inauguration Committee hopes that the resulting volume may be published by an academic press.

Besides Professor Manning, members of the subcommittee are Kathryn W. Lombardi, executive assistant to the president; and Kenneth D. Campbell and Naomi F. Chase, director and assistant director of the News Office, respectively.



MIT: Shaping the Future

appropriate private and public roles in technology research and development? Are we competitive with Germany and Japan in funding civilian technology?

All of the panelists were close to the late Professor Hollomon, who died in 1985 at the age of 66.

Professor Hollomon was widely known for his world role in technology and policy questions. He held leadership positions in academe, industry and the federal government during a career in which he was president of the University of Oklahoma (1968-70), assistant secretary of commerce for science and technology (1962-67), head of GE's General Engineering Laboratory (1960-67), and adjunct professor (1950-62) at RPI.

In the years from 1962-67 he was responsible for the reorganization and restructuring of the US patent system and stimulated US participation in the revision of international patent agreements. He was also responsible for

P rofessors Linda Cima of chemical engineering and Harri K. Kytomaa of mechanical engineering have been awarded the 1991 Doherty Professorships in Ocean Utilization from the MIT Sea Grant College Program.

Every year one or two new faculty members are appointed to the Chair and receive \$25,000 each in annual support.

Dr. Cima, who also holds an appointment with the Harvard-MIT Division of Health Sciences and Technology, will use the fellowship to study the application of alginate, a product of marine algae, to the medical problem of tissue regeneration. This research has potential benefits in the controlled release of drugs and production of antibodies, as well as in organ transplantation.

Dr. Kytomaa will apply the fellowship to research complex sediment transport processes in the ocean. Sediment transport affects beach erosion, siltation of harbor basins, the distribution of both pollutants and biological nutrients, and many other coastal processes.

The professorships, endowed by the Henry L. and Grace Doherty Charitable Foundation, open the way for promising, nontenured professors to undertake marine-related research that will further innovative uses of the ocean's resources. There are no restrictions on the area of research or on how the funds are used, and any aspect of marine use and/or management may be addressed, whether social, political, environmental, economic or technological.

Henrik Schmidt, associate professor of ocean engineering, was named Doherty Professor in 1990; he will hold the chair for a second year to advance his research on acoustic data collection by autonomous underwater vehicles.



\* -Open to public \*\*-Open to MIT community only \*\*\*-Open to members only

## April 3 - 14

## SPECIAL INTEREST

The Johnson Games & Inaugural Picnic\*\*-May 4: The Games and Picnic are being held in honor of Chuck and Becky Vest and will kick off a weeklong Inaugural celebration. Join in the spirit of good-natured competition as teams from across the MIT community form to participate in a combination of physical and mental activities. Call x3-1707 for information on registering a team. Registration deadline: Apr 5.

## SEMINARS & LECTURES

Freshmen are encouraged to attend departmental lectures and seminars. Even when these are highly technical they provide students one means to learn more about professional work in a department and field.

#### WEDNESDAY, APRIL 3

- Quantum Noise Squeezing at Microwave Frequencies\*\*—B Yurke, AT&T. EECS/RLE Seminar Series on Optics and Quantum Electronics, 11am-12pm, Rm 36-428.
- Modelling Conventional Warfare\*-Joshua Epstein, The Brookings Institution. Semi-nar on Technology, Defense, and Arms Control in a Changing World, 12-2pm, Rm E38-714. Bring a lunch, drinks provided.
- Lecture by Dr. Claude Frankignoul, Université Pierre et Marie Curie, Paris/MIT. Oceanography Sack Lunch Seminar, 12:10pm, Rm 54-915.
- Yet Another Discussion about Wave Resistance\*-Dr Dimitris Nakos, MIT. Informal Hydro-dynamics Seminar, sponsored by the Dept of Ocean Engineering, 3:30pm, Rm 5-314.
- Business, Industry, and Environmental Activists: Changing Strategies\*-Jorn Siljeholm, Visiting Scholar and environmental leader and activist. Sponsored by the Hazardous Substances Management Program, 3:30-5pm, Rm E40-212.
- The Political Feasibility of Rural Poverty Alleviation\*-Prof Alain de Janvry, Univ of California, Berkeley, MacArthur Workshop on Development, Security, and International Cooperation Seminar Series, 4-6pm, Rm E38-714
- Non-Condensible Gass Effects on Water Hammer Induced by Bubble Collapse\*\*-B H Easom, PhD candidate, MIT. Thermal Science Seminar, Dept of Mechanical Engi-neering, 4pm, Rm 5-234. Refreshments, 3:45pm.
- On the Sunny Side of Organic Chemistry\*-George Hermann Buchi, Camille Dreyfus Professor of Chemistry in the Department of Chemistry. 1990-91 Killian Award Lecture, 4:30pm, Rm 10-250.
- Four-Dimensional Conformal Quantum Gravity\*\*-Dr Emil Mottola, Los Alamos

- An Analytic Model for Design of a Multi-vehicle Automated Guided Vehicle System\* Margarte Brandeau, Stanford Univ. Sponsored by the Operations Research Center, 4pm, Rm E40-298. Refreshments following seminar.
- Modelling Multidimensional Flames\*\*—Prof Mitchell D Smooke, Yale. Sponsored by the Sloan Automotive/Gas Dynamics Laboratories, 4:15-5:15pm, Rm 37-232. Refreshments, 4pm.
- Electron-Positron Collisions at Highest Energies\*\*-Samuel Ting, MIT. Physics Colloquium, 4:15pm, Rin 10-250, Refresh-ments, 3:45pm, Rin 26-110.
- Architecture Lecture by Krzysztof Wodiczko, artist, New York. 7:30pm, Rm 9-150.

FRIDAY, APRIL 5

- Fluid Statics at Work: Aerostats and the Exploration of Mars\*\*-Eric Gaidos, MIT graduate student. Fluid Dynamics Seminar Dept of Aeronautics and Astronautics, 12-1pm, Rm 33-206.
- Latest Development in Urban Transit Programs in the United States\*\*—Rolan Mross, US Dept of Transporation. Luncheon Seminar Series sponsored by the Center for Transportation Studies, 4245-2pm, Rm 10-105. Luncheon optional, 12-12:45pm, \$2 students, \$5 non-students.
- Metastability, Random Fields, and Phase Transitions\*-Robert Birgeneau, MIT. Center fro Materials Science and Engineering Colloquium, 12:15pm, Rm 12-132.
- Fluid-Kinetic Hybrid Moment Description of Plasma via Chapman-Enskog-Like Approach\*-Dr J P Wang, Univ of Wisconsin, Madison. Plasma Fusion Center Seminar Series, 4pm, Rm NW17-218.
- A Search for Precursors to Seismic Events\*\*-Dr. Paul Silver, Carnegie Institution of Washington. EAPS Spring Department Lecture Series, 4pm, Rm 54-915.
- Nonparametric Estimation of Functions on Space-Time Domains\*\*—Mark Matthews, Stanford Univ. Special Applied Mathemat ics Colloquium, 4pm, Rm 2-131. Refreshments, 3:30pm, Rm 2-349.
- Lecture by Gregory Hines\*-Dancer/actor Gregory Hines will present the Abramowitz Memorial Lecture, 8pm, Kresge Auditorium.

**MONDAY, APRIL 8** 

- The Formulation of a National Energy Strategy-to 2030 and Beyond\*\*-Dr Robert Marlay, US Dept of Energy. Sponsored by the American Nuclear Society, MIT, 3:30pm, Rm NW12-222.
- Multiresolution Signal Analysis: Is it the Wave(let) of the Future?\*\*-A Willsky, MIT. EECS Colloquium Series, 4-5pm, Rm 34-101. Refreshments, 3:30pm.
- Solar Aquatics and Ecological Engineering\*\*-John Todd, Ocean Arks International. Sponsored by the Ralph M Parsons Laboratory for Water Resources and Hydrodynamics, 4pm, Rm 48-316.
- Some Basic Studies on Liquid Jet Cutting\*\*-Sourav Bhunia, MIT. Fluid Mechanics Seminar Series, 4-5pm, Rm 5-234.
- Multiresolution Signal Analysis: Is it the Wave(let) of the Future?\*-Alan Willsky, MIT. MIT-EECS Seminar. Wavelet Semi nar, Dept of Mathematics, 4:00pm, Rm 34-101
- Interactions Between Tropical and Extratropical Cyclones\*\*-John Molinari, SUNY Albany. Sponsored by the Center for Meteorology and Physical Oceanography, 4pm, Rm 54-915.
- Mathematics and Philosophy: The Story of a Misunderstanding\*\*-Gian-Carlo Rota, MIT. Applied Mathematics Colloquium, 4pm.

- The Technology Race: Can the US Win?\*\*-J. Herbert Hollomon Memorial Symposium. President Charles Vest: opening remarks and introduction, Panel: Harvey Brooks, Profes sor Emeritus, Harvard; Roland Schmitt, President, Rensselaer Polytechnic Institute Jerome Wiesner, President Emeritus, MIT: Robert White, President, National Academy of Engineering. Moderator: Daniel Roos. Director, The Center for Technology, Policy and Industrial Development. Presented by the Technology and Culture Seminar, an event of the inaugural year. 3pm, Kresge Theater.
- Substituting Reserves for Regular Forces in NATO\*-Col. Wallace Earl Walker, Prof of Public Policy, West Point. MIT Defense and Arms Control Studies Program Seminar Series, 3:30-5pm, Rm E38-714.
- Worlds Transformed: Themes from Environmental Politics in Twentieth Century China\*-Keith Schoppa, Valparaiso University. Part of a lecture series on history and the global environment, sponsored by the MIT History Department, 4pm, Rm E51-140.
- Intra- and International Migration: A New Theoretical Approach\*—Jerome Rothenberg, MIT. The Inter-University Seminar on International Migration, CIS, 4-6pm, E38-615. Refreshments.
- Future Directions in Materials and Process for Silicon ULSI Technology\*-R D Isaac, IBM. Sponsored by Microsystems Technology Laboratories and the VLSI Seminar, 4pm, Rm 34-101. Refreshments, 3:30pm.
- Molecular Clouds Near the Galactic Center\*-Tony Stark, Bill Labs. Astrophysics Colloquium sponsored by the Center for Space Research, 4:15pm, Rm 37-252. Refreshments at 3:45pm.
- Direct Photon Physics at Hadron Colliders\*\*-Gregory Snow, Univ of Michigan. LNS Colloquium, 4:15pm, Rm 4-163. Refreshments, 3:45pm, Rm 26-414.

#### WEDNESDAY, APRIL 10

- Fiber in the Loop\*\*-P Shumate, Bellcore. EECS/RLE Seminar Series on Optics and Quantum Electronics, 11am-12pm, Rm 34-401B
- Flying Wings, Low Observable Technology, and the B-2 Bomber\*-John Cashen, Northrop Corp. Seminar on Technology, Defense, and Arms Control in a Changing World, CIS, 12-2pm, Rm E38-714. Bring a lunch, drinks provided.
- The US Space Program Viewed From the Year 2020 With 20-20 Hindsight\*-Norman R Augustine, Chairman and CEO, Martin Marietta Corporation. Sponsored by the MIT Space Grant Program, 2pm, Rm 26-100.
- Neutron Based Materials REsearch in NIST Reactor\*\*-Dr. Mike Rowe, National Institute of Standards and Technology. Special Seminar Series on the Scientific Industrial Applications of Radiation Technology, 4-5pm, Rm 9-150.
- Privatization and the Myth of the Natural Market: Some Thoughts on First-world Theory and Third-World Problems\*-Michael Piore, MIT. Cosponsored by CIS and the Dept of Urban Studies and Planning, 4-6pm, Rm E38-714.
- Freezing of Tissue and Its Application to Cancer Treatment\*\*—Prof B Rubinsky, Univ of California, Berkeley. Thermal Science Seminar, Dept of Mechanical Engineering, 4pm, Rm 5-234. Refreshments, 3:45pm.

#### **THURSDAY, APRIL 11**

- Pension Funds\*\*-Mark Waltch, Aldrich, Eastman & Waltch. Rose Lunchbox Series. sponsored by the Center for Real Estate Development, 12:45pm, W31-301. Brown bag lunches welcome.
- Problems of Hmong Refugees from Laos: The Health Care Example\*\*-Xoua Thao. M.D., Pawtucket Memorial Hospital, and Patricia V. Symonds, Brown Univ, Spon-sored by the Anthropology/Archaeology

- Large Fires, Nuclear Winter and Oil Spills\*\*-Howard Baum, National Institute of Standards and Technology. Mechan Engineering Seminar, 3pm, Rm 3-133. Refreshments, 4pm, Rm 1-114.
- Complex Adaptive Systems\*\*-Marray Gell-Mann, California Institute of Techno Physics Colloquium, 3:30pm, Rm 10-250.

#### FILMS

- Man With a Movie Camera\*\*-Apr 8: Part of the Monday Night Urban Design Video Series, 6:30pm, Rm 10-485.
- Becoming American; Peace Has Not Been Made: A Case History of a Hmong Family's Encounter with a Hospital\*\*-Apr 9: A video presentation sponsored by the Anthro-pology/Archaeology Program, 1-2:30pm, Rm 20B-136.

#### COMMUNITY INTEREST

- Alcoholics Anonymous (AA)\*\*-Meetings ev ery Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. For info call Alice, x3-4911.
- Al-Anon\*\*-Meetings every Fri, noon-1pm, Health Education Conference Rm E23-297; every Tues, noon-1pm, Rm 1-246; and every Mon, 12-1pm, Lincoln Lab Bldg 1218, Family Support Ctr. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Call Alice, x3-4911.
- Alcohol Support Group\*\*-Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. For info call Alice, x3-4911.
- Co-Dependents Anonymous (CoDA)\*-Meetings every Thurs, 6:30-8pm, Rm 66-156. Info: Alice, x3-4911.
- Eldercare Support Group\*\*-Meetings every Monday 12-1pm, Rm 8-219. For info call Carole x3-9368 or Maria x3-8820.
- Informal Embroidery Group\*\*-MIT Women's League, 10:30am-1:30pm, Rm 10-340. Upcoming dates are: Apr 3 & 17, May 1 & 15, June 12. Info: x3-3656.
- **Graduate Student and Postdoc Parents Support** Group\*-Co-leaders: Dawn Metcalf, MIT Social Worker, and Rae Goodell, MIT Coordinator of Parent Programs. Ongoing, meets weekly. Info: Dawn Metcalf, x3-4911, Rm E23-344, or Rae Goodell, x3-1592, Rm 4-144..
- Boston Mutagenesis Group\*-Meetings are held the first Wednesday of the month in the 6th floor conference room, E17, 7pm. Speakers from MIT, Harvard and other local schools discuss their research; related topics include mutagenesis, carcinogenesis, cellular repair systems and DNA damage in prokaryotic and eukaryotic cells. Info: Kara Best x3-6729.
- Narcotics Anonymous\*-Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.
- Overeaters Anonymous (OA)\*-Meets Thurs. 1-2pm, Rm E23-364. Only requirement for membership is the desire to stop eating compulsively. Info: Alice, x3-4911.
- Parenting Programs—Apr 8: "Choosing In-Home Child Care," 12-1:30pm, Rm 6-233. Apr 8 - June 24: "Active Parenting of Teens," a 10-part series based on the national, videobased Active Parenting program. Pre-registration and book purchase (\$15) required. 12-1:30pm, Rm E23-297. Call x3-4911 or x3-1592. Apr 9: "Working and Nursing Your Baby," 12-1:30pm, Rm E23-297.
- Parenting Support Groups-New Parents Support Group\*\*: Tuesdays, 12-1:30pm, contact Rae Goodell, x3-1592. For parents of children up to 6 months old or expected by 4/ 15. Parent Support Group\*: Wednesdays, 12-1:30pm, call 1-800-882-1250. Parenting After Divorce Support Group\*\*: Biweekly Fridays, 12-1pm, contact Rae Goodell x3-1592. Child Care Briefings\*\*: Int

First Tues of each month, 10-11am and third Weds of each month, 4-5pm, Rm E23-297. Babies welcome. Info: Margery Wilson 868-7218.

Working Mothers Support Group\*\*-An ongoing support group that meets to discuss parenting-related issues in a casual atmophere. Meets every other Thursday, 12-1:30pm (drop in anytime), Rm 18-591. Info: Therese Henderson, x3-7492.

## MITAC

Ticket locations and hours: Tickets may chased at the MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm Monday-Friday. Lincoln Lab sales in Rm A-218, 1-2pm Tuesday-Friday. Friday ticket sales in Lobby 10 and E19, 12-1:15pm. Further details on events are included in MITAC's monthly flyer. To avoid disappointment, make reservations and purchase tickets early. Because MITAC is nonprofit, refunds are not available.

- MITAC, the MIT Activities Committee, offers discount movie tickets for General Cinema and Loews Cinemas, both are \$4/ea (Loews tickets are not valid the first 2 weeks a movie is released). Tickets are good 7 days a week, any performance. Showcase and Entertain-ment cinema tickets have been discontinued.
- Boston Classical Orchestra-Apr 24: Mozart, Beethoven and Haydn; Old South Meeting House, 8pm, tkts \$9/ea (reg \$12), purchase by Apr 10.
- Fallen Angels-Apr 25: Noel Coward's comedy, Lyric Stage, 8pm, tkts \$12.50 (reg \$13.50), purchase by Apr 11.
- Red Sox Tickets-May 21: vs Milwaukee. June 18: vs Seattle. 7:35pm, \$10/ea (grandstand), first come, first served.
- Tired of automotive woes? Discount coupons now avail for Merchants Tire & Car Care, 10% off all reg automotive svcs, 5% off all regular priced tires. Avail in MITAC office.
- North Shore Music Theatre Corporate Discounts! Enjoy top-notch theatrical produc-tions at \$3 off all Broadway shows. Call 922-8500 for tkt reservations.
- Museum of Fine Arts-The Council for the Arts has 10 passes employees may borrow for free admission. Call the MIT libraries, x3-5651. for availability. At Lincoln Lab, MFA passes are available in A-150.
- Arlington Capitol Theatre discounts! Commercial, 2nd run, and art-type films, only \$3/ pp with MIT ID (reg. \$4/pp). Located at 204 Mass Ave, call 648-4340 for more info.
- The new City Books are here, only \$1/ea (reg \$7.50), terrific discount coupon book for the Boston area.
- Winter Ferry Discounts to Martha's Vineyard, \$1 off, and Nantucket, \$2 off (valid through 4/ 15, limit 4 per coupon).
- Just arrived: Discounts for Taxman (20% off on tax preparations) and Kay Jewelers (10% off, some restrictions apply).
- Coming soon: Free passes to the Comedy Club at the Charles Playhouse.
- Check the MITAC office for a complete listing of other discounts currently available (i.e., Magic Kingdom Club Card for Disney World discounts).

## SOCIAL ACTIVITIES

- French Lunch Table\*\*-Come to lunch and speak French; every Tuesday from 1-2pm in Walker dining hall. Look for the table with the tablecloth. All levels welcome. Sponsored by the Foreign Languages & Literatures Section.
- German Lunch Table\*\*-Come to lunch and speak German; every Monday from 1:15-2pm in Walker dining hall. Look for German flag. All levels welcome. Sponsored by the Foreign Languages & Literatures Section.

National Laboratory. LNS Joint Theoretical Physics Seminar, 4:30pm, CTP Seminar Rm, Bldg 6, 3rd flr.

The Ups and Downs of Democratization in Russia\*\*\*-Timothy Colton, Harvard Univ. Harvard-MIT Joint Seminar on Politi cal Development, 5:30pm, MIT Faculty Club Open to members only.

#### **THURSDAY, APRIL 4**

- Development of an Euler Equation Solution to the Effective Wake Problem\*\*-Robert Stairs, MIT. Hydrofoil and Propeller Seminar, 12-1pm, Rm 5-314. Bring your lunch, coffee provided.
- The Future of the Financial Services Industry\*\*-Ann Goodbody, Citicorp Real Estate, Inc. Rose Lunchbox Series, sponsored by the Center for Real Estate Development, 12:45pm, W31-301. Brown bag lunches welcome

Identification of ER Membrane Proteins Associated with the Translocation Intermediate\*\*-Sylvia Sanders, Schekman Lah, Univ of California, Berkeley. Whitehead Institute Seminar, 2pm, Whitehead 7th Floor Seminar Room.

Rm 2-338. Refreshments, 3:30pm, Rm 2-349.

Walter Rathenau and Modern Technological Culture\*\*-Thomas Hughes, Univ. of Pennsylvania; Visiting Professor, MIT. Colloquium sponsored by the Program in Science, Technology, and Society, 4-6pm, Rm E51-004.

Millimeter-Accuracy Satellite Navigation\*\*-Prof Chuck Councilman, MIT. MIT/ Draper Joint Seminar Series in Dynamic Guidance and Control, 4:15pm, Draper 1409B.

#### **TUESDAY, APRIL 9**

**Precision Tests of Fundamental Symmetries** Using Polarized Atoms\*\*-Timothy E. Chupp, Harvard. Seminar on Modern Op tics and Spectroscopy, 11am-12pm, Rm 37-252. Refreshments follow lecture.

The MITEE Micromouse\*\*-David Otten, MIT. Live demonstration included. Autono mous Underwater Vehicles Seminar Series. 12pm, Rm E38-300. Bring lunch.

**Precision 3-D Photon Detectors Using Noble** Liquids\*\*-Min Chen. LNS Technical Seminar, 12:15pm, Rm 26-414. Coffee, tea, 12pm.

Program, 1-2:30pm, Rm 20B-136.

Jet Physics and QCD\*\*-Maurice Jacob, CERN. LNS Special Seminar, 4pm, Bldg 6, 3rd fl.

Modeling and Experimental Results of Piston Ring Lubrication\*\*-James Azzola, PhD candidate, MIT. Sponsored by the Sloan Automotive/Gas Dynamics Laboratories, 4:15-5:15pm, Rm 37-232. Refreshments, 4pm.

Of Blacksmiths and Blackmail: Resistance to Hegemonic History at Colonial Williamsburg\*-Richard Handler, Univ of Virginia. Peoples and States: Ethnic Identity and Struggle, CIS, 4:30-6:15pm, Rm E38-714.

Architecture Lecture\*\*-Michael Dennis, architect, Cornell University. 7:30pm, Rm 9-150.

#### FRIDAY, APRIL 12

Genetic Analysis of the Budding yeast Centromere\*\*-Philip Hieter, Johns Hopkins Medical School. Sponsored by Whitehead Institute, 12pm, Whitehead Auditorium.

seminars, 12-1:30pm, Rm 4-144 on Apr 3 & 17, May 1, 15 & 20, June 12 & 26. Breastfeeding: The Video\*\*: Apr 18, May 30, 7-9pm, Rm E23-297.

Support Group for People with Relatives in the Middle East\*\*-Tuesdays, 12-1:30pm, Rm E23-501. Sponsored by the Social Work Service of the Medical Department. Lunches welcome. Further information: Jackie Buck or Dawn Metcalf, x3-4911.

Wives' Group\*\*-Apr 3: "Understanding American Ideioms, Part II," Suzanne Koons, Lecturer ESL, MIT Foreign Languages and Literature. (Handouts for homework for the discussion are available from Janet in E23-376 or at this meeting.) Apr 10: "Coping With Cultural Differences: Living in the Boston Area," members of the Wives' Group and Charlotte Schwartz. Meetings are from 3-4:45pm, Rm 491 Student Ctr. Free babysitting in Rm 407. All women in MIT community welcome. Info: x3-1614.

### HEALTH EDUCATION

Nursing Mothers' Support Group\*\*-Pregnant and breastfeeding women at MIT meet to gain confidence and share info and practical tips.

Japanese Lunch Table. Bring a bag lunch and talk with native Japanese speakers. Special cultural event each month. Beginning Japanese speakers especially welcome. Sponsored by the MIT Japan Program, the Dept of Foreign Languages and Literatures, and the MIT Japanese Wives' Group. Meets Tuesdays at 1pm in Walker 220. More info: Susan Sherwood x3-8095.

#### MOVIES

Black Student Union Film Series\*\*-Apr 5: Zoot Suit. Depiction of the actual 1942 L.A. trial of a group of Chicanos for the murder of an opposing gang member, 7-9pm, Black Student Union Lounge (Rm 50-105).

Admission to below Lecture Series Committe Movies is \$1.50, and MIT or Wellesley identification is required. For the latest Lecture Series Committee movie and lecture information, call the LSC Movieline, x8-8881

LSC Movies\*\*-Apr 5: The Krays, 7 & 10pm, Rm 26-100. The Prisoner of Zenda, 7:30pm, Rm 10-250. Apr 6: Misery, 7 & 10pm, Rm 26-100. Apr 7: The Jungle Book, 3, 7 & 10pm, Rm 10-250. Apr 12: Three Men and a Little

and formerly the director of the

Whitehead Institute and an MIT pro-

fessor of biology, released a one-

paragraph statement which was

printed in newspapers of March 21,

saying, "The draft report, if it stands

without major change, raises very

serious questions about the veracity

of the serological data in the paper. Therefore, I am today asking the other

authors to join with me in requesting

that the journal retract the paper until

such time as the questions are resolved.

It is up to Dr. Imanishi-Kari to resolve

assistant professor of biology at MIT,

is now on the faculty at Tufts Univer-

sity. The editors of Cell reportedly have

said they would print a retraction in a

Thereza Imanishi-Kari, formerly an

them.

future issue.

Lady. 7 & 10pm, Rm 26-100. Apr 13: Mermaids, 7 & 10pm, Rm 26-100. Apr 14: Repo Man. 7 & 10pm, Rm 10-250.

## MUSIC

For recorded information on upcoming concerts and lectures call the MIT Music and Theater Arts Concert Line, x3-9800. Updated weekly.

- MIT Chapel Series\*-Apr 4: Stephen Aron. guitar. Apr 11: Prosperity of Jazz. 12pm, MIT Chapel.
- Advanced Music Performance Concerts\*-Apr 5: Amy Huey-Zu Lin '92, violin. Mendelssohn and Stravinsky. Apr 12: Graduate student, Jee-Hoon Yap, piano. Brahms, Mozart, Harbison. 12pm, Killian Hall.
- MIT Affiliated Artist Series\*-Apr 7: Piano recital by Eleanor Perrone featuring Bach, Beethoven, Stravinsky, and Schubert. 3pm, Killian Hall.

Music and Dance Double Bill\*-Apr 12-13: See listing under Dance & Movement.

## THEATER

Call the Theatre & Dance Performance Hot-Line at x3-4720 for complete up-to-date inform on theatre and dance performances at MIT.

- Master of Science\*-Apr 11: Presented by Betsy Salkind '86, feminist comedienne and instructor of an improvisational comedy workshop at MIT, 8pm, Rm 35-225.
- The Mikado, or The Town of Titipu\*-Apr 12-14, 20-21: Presented by the MIT Gilbert and Sullivan Players. Performances at 8pm, plus 3pm on Apr 13 and 20, Rm 54-100. Call 628-1241 for tickets or information

## DANCE & MOVEMENT

- Music and Dance Double Bill\*-Apr 12-13: Soprano Karol Bennett and pianist John McDonald in collaboration with Beth Soll and Co., 8pm, Kresge Auditorium. Tkts: \$12; \$5 senior citizens and MIT students.
- MIT Ballroom Dance Club Workshops\*-Apr 6: Spring Semi-Formal Dance, Morss Hall, Walker Memorial, 8pm - midnight. Apr 14: Beginning Swing, 1-2pm; Inter-mediate Viennese Waltz, 2-3:30pm; Pro-fessional Cha Cha 4, 4:30-5:30pm, General Dance: 3:30-4:30pm, free. Membership through June 1991: Students, \$3, MIT/ Wellestey affiliates, \$5: others, \$10. Workshop admission fees range from 50e to \$4 depending on membership and level. No partner necessary, info x8-6554.
- Tai Chi\*\*-Ancient Chinese system of exercise beneficial to one's physical, mental and emotional health. More info: Lisa x3-5695.
- MIT Folk Dance Club\*-Three nights of dancing. Sunday: International Dancing, 7-11pm. Lobby 13, with Early Teaching from 7. 7:30pm, Tuesday: Advanced Balkan Dancing, 7-11pm, Rm 491, Student Center, Wednesday: Israeli Dancing, 7-11pm, Lobby 13, with Early Teaching from 7-7:30pm. Info: x3-FOLK.
- Aerobics Classes\*—Sponsored by the MIT Dance Club, Every Mon, Wed, Fri, 6-7pm, Bldg W31 Dance Studio. \$4/class, beginners welcome. More info: Julia, 492-1369.
- Yoga\*-Ongoing classes in traditional Hatha and Iyengar style, Beginners: Mon, 5:10pm; Intermediate/Advanced: Mon, 6:30pm, Rm 10-340. For information call Ei Turchinetz, 862-2613.
- Kundalini Yoga\*-Monday classes, 6-7pm, Rm 1-136. Beginners welcome. \$1/class. For information call Andy Rothstein 232-9961.
- MIT Dance Workshop Classes\*-An activity of the Theatre Arts program taught by members of the Beth Soll & Co, MIT's resident dance Beginning Modern Technique, company. M,W, 3:30-5pm, T-Club Lounge, Dupont Ctr:

# **1991 Kelly** Competition

Thursday, April 25, is the deadline for submitting essays to the 1990-91 I. Austin Kelly III Prize Competition.

The competition awards two \$500 prizes for the best scholarly or critical essays in any of the following fields or in some interdisciplinary combination of them: literary studies, history (including history of science and technology), musicology, archaeology and anthropology. All full-time MIT undergraduates, except previous winners, are eligible.

To obtain a copy of the competition rules and guidelines, or to see previous winning essays, students should contact Bette Davis or Eileen Murray in the Humanities, Arts and Social Sciences office (Rm 14N-408, x3-4441).

Iroquois example and precedent. Through Apr 14. Open M-F 12-6pm, Sat, Sun 1-5pm.

#### THE MIT MUSEUM

MIT Museum Bldg (N52)-Works by Robert Preusser. Overview of paintings done since the 1930s by former MIT Professor of Visual Design, Dept of Architecture. Through Apr 4. Doc Edgerton: Stopping Time. Photographs. instruments, and memorabilia documenting the late Harold Edgerton's invention and us of the strobe light. Ongoing. Light Sculptures by Bill Parker. Vivid interactive light sculptures, each with its own personality and set of moods. Ongoing. Holography: Types and Applications. Scientific, medical, technical and artistic imaging drawn from the work of the Spatial Imaging Group at MIT's Media Lab. Ongoing. Math in 3D: Geometric Sculptures by Morton G. Bradley, Jr. Colorful revolving sculptures based on mathematical formulae. Ongoing. Tues-Fri 9-5; Sat-Sun 1-5.

#### HART NAUTICAL GALLERY

Ongoing exhibits: George Owen '94: Yacht Designer-Ship Models, Half Models in Naval Architecture. Ongoing. 77 Mass Ave, Mon-Sun 9am-8pm.

100

#### CORRIDOR EXHIBITS

Corridor Exhibits: Bldg 1 & 5, 2nd floor: John Ripley Freeman. Lobby, Bldg 4: Norbert Wiener, Karl Taylor Compton. Community Service Fund, Ellen Swallow Richards. Women at MIT. An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Bldg 6: Laboratory for Physical Chemistry. Bldg 4: Edgerton's Strobe Alley: Exhibits of high-speed photography.(Corridor Exhibit).

#### COMPTON GALLERY

Crazy After Calculus: Humor at MIT. Photographs, cartoons, and a collection of artifacts documenting a rich history of MIT wit and wizardry shown through "hacks,"-elaborate practical jokes involving humor and/or engineering technique. Hours 9-5 weekdays.

#### **OTHER EXHIBITS**

Institute Archives and Special Collections Jerome C. Hunsaker, Father of Aeronautics at MIT: Chronicles his founding of aeronautics at the Institute; his design and construction of Navy airships and NC-4, the first airplane to cross the Atlantic, and his role in leading the Dept of Aeronautical Engineering from 1939-51. The Tech Show: "Engineering is interfering with fun...Wish my four year stretch were over and done. That's from 1947 but it could be sung today.

# **Misconduct Review Ongoing**

#### (continued from page 1)

Commenting on this matter yesterday, Provost Mark S. Wrighton said, "While our business is education and research, most people of our generation have been brought up without explicit attention to ethics in the conduct of science. Our younger colleagues should have the benefit of such guidance, as they embark on their careers. For example, in the Chemistry Department, I gave every graduate student, post-doc and faculty member a copy of the NAS (National Academy of Sciences) booklet, "On Being a Scientist," which was written by the NAS Committee on the Conduct of Science, whose members included Phil Sharp (professor of biology)."

In his letter, Dr. Vest called on the faculty to work with him in designing an Institute-wide program of career guidance and mentoring, an idea that has been raised by a number of faculty in discussions with him over the past several months.

In other developments in the case involving the controversial April, 1986 'Cell" article on transgenic mice research, the Office of Scientific Integrity at the National Institutes of Health has declined a written request from MIT for a copy of the confidential draft report.

The NIH has also informed MIT and the news media that there will be

another NIH report which will examine the institutional response by MIT and Tufts University.

Provost Mark S. Wrighton said NIH informed MIT that it did not receive a copy of the full NIH draft report because the report concentrates on the scientific issues of the case and none of the researchers are currently employed by MIT. The research was carried out by former staff members at MIT and the Whitehead Institute. In response to MIT's request, the NIH did send MIT two paragraphs of the 120-page confidential draft report which made references to MIT actions. The provost is reviewing this information and may make a response to NIH prior to April

Dr. David Baltimore, now the president of Rockefeller University

## **Ethics Panel Report** (continued from page 1)

Members of the 25-person panel who are from MIT include Institute Professor John M. Deutch; Professor Sheila E. Widnall of the Department of Aeronautics and Astronautics; and Dr. Jenny L. McFarland, a postdoctoral fellow in the Department of Brain and Cognitive Sciences.

## Writing Deadline The deadline for submissions

for the 1990-91 writing prizes is 5pm Thursday, April 11. Cash awards are available in areas of fiction, short story, poetry, drama, essay, scientific and engineering writing and science writing for the public. Guidelines and applications are available in the Writing Program office, Rm 14E-303.

Kenneth D. Campbell

# **CECI to Succeed Project Athena** he said, are the electronic development

(continued from page 1) productivity. For the lab the application is engineering and construction. For the new center the application is how instructors teach and how students learn

Project Athena, MIT's successful eight-year effort in academic computing, will conclude its experimental phase in June. The campus-wide Athena computing environment of about 800 workstations will become a permanent part of the Institute's academic infrastructure. The focus of educational computing research will shift to the new center Professor Lerman will head.

In an Athena-transition report to the February faculty meeting, Professor Wrighton cited the "high level of achievement" MIT has reached in academic computing. The next step, he said, is getting to "a higher plateau," and he called on Professor Lerman to lead that effort.

Professor Lerman said he expects the new center to be active in three areas-creating the enabling technologies that make development of educational computing applications easier and faster; encouraging new applications; and evaluating the impact on learning of educational computing.

Associate Professor Sherry R. Turkle of the Program in Science, Technology and Society and Professor Donald A. Schon, head of the Department of Urban Studies and Planning, conducted research in the latter field as part of the Project Athena Study Group, he said.

ing done in Project Athena's Visual Computing Group and on activities underway in the Intelligent Engineering Systems Laboratory. Professor Lerman hopes to interest from four to six industrial partners in this effort.

The presence of multiple research partners is one of the ways in which life will be different for educational computing research in the post-Athena period. Digital Equipment Corp. and IBM were the sole main supporters of Athena.

"Another significant difference," Professor Lerman said, "is that CECI will have a much more eclectic technical base. Athena was focused on one technical base, and there are some educationally useful projects that are not well suited to the Athena-style base."

Some areas in which Professor Lerman expects interesting projects to develop include what he referred to as "scientific visualization," especially of processes that are constantly changing. He offered some examples: fluid flows, economies and viewing mathematical models based on intuition in a way that numbers alone could not provide.

Other areas that will involve CECI,

### ment of computer tools that will permit students and their academic advisers to better plan curriculums. "This is not a technically profound application, but it will be quite useful if

of library services and the develop-

we can show graphically what subjects a given student will need over three or four years for a given academic program goal," he said. "It's not as easy as one might think to deal with that.'

Professor Lerman also has high expectations that CECI will provide intellectual and career support for faculty, many of them junior faculty, in various departments who are interested in educational computing. There is concern, he said, about the impact on careers of devoting time to academic computing rather than to research in traditional areas.

"One of the important questions that needs to be addressed is how does involvement in academic computing by faculty factor into tenure decisions," he said. "One of my hopes and expectations is that the CECI will become a peer group that will attract young faculty and provide a means to look at this question."

# **Team Seeks New Emissions Marker**

## (continued from page 1)

chemical compositions immediately after they are emitted," he said.

Today's catalytic converters, however, emit elements that are stable and compare the chemical composition of the air there today with the composition measured several years ago.

When the study is completed, the latest elemental composition for motor vehicle emissions will be included in the EPA's source composition library, which contains the chemical compositions and markers for everything from power-plant emissions to wind-blown dust. Then, said Dr. Olmez, "scientists in, say, Michigan can use this information to calculate the contributions of motor vehicle emissions to their atmosphere."

Intermediate Modern Technique, Tu Th, 5:30-7pm, Walker-201; Composition/Improvisation, Tu 1-2:30pm, Walker-201; Technique/ Repertory/Improvisation, Wed 11-12:30, Walker-201. Tap. Fri 12-1:30pm, Walker-201. Info: x3-2877.

#### EXHIBITS

#### LIST VISUAL ARTS CENTER

Juan Francesco Elso Padilla. First US showing of works by Padilla, a Cuban sculptor who died of leukemia at age 32. Highly personal blend of secularism, mysticism, magic and ethics seeking to identify and embody a Latin American mythology, drawing on both Afro-Cuban and Indian traditions. Robert Arneson: The Jackson Pollock Series. Large portrait busts and heads of Pollock, which are both dramatic psychological studies and technical tours de force. Also included are ceramic recreations of Pollock's final car crash and a full-scale sculptural interpretation of one of Pollock's major paintings. Barbara Broughel: Storytelling Chairs. Ensemble of eight richle doctored and decorated early American chairs by the New York-based sculptor creates an environment for relecting on the little-appreciated extent to which co-Ionial American culture was idebted to

Portrays an MIT institution with a 92 year history.

## WELLESLEY EVENTS

#### **LECTURES & EVENTS**

Apr 3: "Etruria in Wellesley," Elizabeth Chellis, 12:15pm, Jewett Art Center Corridor Gallery. Chinese Intellectuals Today: Problems of Language, Ideology and Identity," Perry Link, 7:30pm, 277 Science Center. "From Peasant Wars to Urban 'Wars': the Anti-Mafia Movement in Palermo," Jane Schneider, 7:30pm, 206 Pendleton East. "Creating Relational Mutuality: The Flow of Empathy. Judith Jordan, 8pm, 112 Pendleton Hall, \$5.

Apr 4: "The Conception and Measurement of Attitudes Towards Lesbian Women," Bianca Cody Murphy, 12:30-1:30pm, Cheever House.

Apr 6: "The Art of Fashion," the Tenth Annual Springtime Fashion Show to benefit the Kathleen Daly Scholarship at Wellesley, 8pm. Alumnae Hall. Tkts: \$7.

Send notices for Wednesday, April 10, through Sunday, April 28 to Calendar Editor Rm 5-111, before 12 noon Friday, April 5.

"I also can see a role for CECI in MIT's K-12 activities," Professor Lerman said, speaking of the growing interest at the Institute in reaching out to elementary and secondary schools with an eye toward improving the teaching of science at those levels. "Professor (Seymour A.) Papert is a key figure in this area." Dr. Papert is professor of education and media technology and the LEGO Professor of Learning Research. He has been involved for several years in an experiment at a Boston school using computers in basic education.

One of Professor Lerman's first goals is to establish an industrially sponsored research and development consortium that will work with MIT researchers in the further development of the Muse software. Muse allows students and faculty to create-quickly and without programming skillshighly interactive multimedia applications. The consortium will build on the extensive work in multimedia computcan be traced. Preliminary results with samples provided by General Motors showed that cerium, lanthanum and some other elements might make good markers, Dr. Olmez said.

To get more conclusive results, over the next few weeks the researchers hope to sample emissions from more than 50 new cars. "The more cars I sample, the more reliable the data," Dr. Olmez said. That's because emissions from different brands of catalytic converters vary. "Japanese converters in general emit more lanthanum, American converters more cerium," Dr. Olmez said. He plans to average the data to arrive at a reliable composition for motor vehicle emissions.

(If you have a 1991 car and would like to participate in the study, call Dr. Olmez at x3-2995. Sampling takes about 15 minutes.)

In the final phase of the study, Dr. Olmez, in collaboration with the University of Maryland, will sample air from the Baltimore Harbor Tunnel to

## **Bad News**

The parking lot at the corner of Ames and Main Streets will close permanently on Saturday, April 6, so that excavation work for the new biology building can begin. Alternative parking for those temporarily dislodged in West Garage is available in lots at 243 and 275 Vassar Street and next to Whitehead, off Ames Street near Broadway.

Classified

Tech Talk ads are intended for personal and

private transactions between members of the

MIT community and are not available for com-

mercial use. The Tech Talk staff reserves the

right to edit ads and to reject those it deems

INSTRUCTIONS: Ads are limited to one (of

approximately 30 words) per issue and may not be repeated in successive issues. All must be

accompanied by full name and extension. Per-

sons who have no extensions or who wish to list

only their home home telephones, must come in

person to Rm 5-111 to present Institute identi-

fication. Ads using extensions may be sent via

Institute mail. Ads are not accepted over the

All extensions listed below are campus num-

bers unless otherwise specified, i.e., Dorm, Linc,

MIT-owned equipment may be disposed of

Deadline is noon Friday before publication.

Whirlpool washing mach, 4 cycle, 4 water lvl, bst

more, bst offer. Call x3-8216 or 666-0643.

W's Raleigh bike, 3-sp, gray, gd cond, \$45 firm.

Downhill skis/boots pkg, used only 1x, perf cond: Olin Comp SP skis 175cm, Salomon 757 bind-

7 1/2), \$350 or bst. Call 508-533-8168.

Encyclopedia American, 1972 edition, complete set, exc cond, \$99. Roger x3-7144 or 776-

Electronic treadmill (Pacemaster), 10° uphill in-

Microwave: large digital Kenmore with all temps.

Brand new Bretford, wide-body, mobile TV/VCR

Piano for sale, antique parlor upright, Irg mellow

IBM PS/2 Model 50, 286, 20MB hd disk, math

separately. Call x3-5730 or 547-9101.

Sm (24" wide) cherry roll-top desk, 1 drwr, \$175.

11-mo purebred Norw Elkhound, avail to gd home,

sell, best home/offer combo will take "Duke.

watchdog, grt w/kids, f/t student must

Tom Tiffany x3-6246 or 864-4440.

John, Linc x3541 or 617-862-4809

\$200. Rebecca 524-9483.

Comf sofa, exc cond, \$90. Call 643-4276.

cabinet tbl, 32"Wx48"Hx27"D, nw \$324, sell

for \$295; Big Wheels access kit, 28" str whls, 2

5" swiv whls, nw \$66, sell for \$60. Lee x3-6148

sound, keeps tuning well, located in Camb for

easy move, owned by prof musician, \$525.

coprocessor, VGA color mntr, 2 floppy drs,

mouse, Epson prntr, peripherals can be sold

only \$50. Susan 621-1186.

Call x3-9365 or 354-6297.

cline, 10mph, must sell, \$1000 or bst (orig

\$1600); also \$2000 reward for 2BR mid-

Camb rent-cont apt, to \$650. Call 864-0239.

ings, Reflex poles, Nordica N955 boots (W's sz

Lori x3-3074 or 628-5156 lv mssg.

offer; IBM PC-XT & Proprinter, 256K, mono

mntr, Hercules Graphic Card + orig saved, doc,

through the Property Office.

FOR SALE

6871.

inappropriate.

telephone.

Draper, etc.

Ads

## VEHICLES

4420.

1965 Cadillac Sedan de Ville, from CA last yr, no rust ever, 58K, nw paint, exc leather int, beautiful classic, \$5500. Jim x3-2048 or 1-934-6782.

Sofa, light brown velvet, 4-seater, detachable pil-lows, impeccable condition, \$300. Call 484-

- 1975 Chevy Monte Carlo, v gd cond, nw trs/exh as of 3/18, \$900. Ida x3-4765 or Mike 868-6446.
- 1978 Chevy Nova, 2-dr, 6 cyl, auto, green, gd cond w/very little rust, nw batt, recent tune-up, gd trs & new spare, \$1200. Call 924-4488 or 924-7692 aft 5pm.
- 1978 BMW 320i, 4-sp, 100+ mi, runs grt, \$1500. Terry x3-5687.
- 1983 Toyota Tercel, 4dr htchbk, 5-sp standard, 117K, nw clutch/brks/trs, some rust, runs gd, \$500 or bst. Scott x3-5570 or Pamela 353-6987.
- 1983 Nissan Sentra, 4-sp, 53K, grt gas mileage, \$1500 or bst. Brian x3-6207.
- 1984 Subaru GL, 4-dr, 5-sp, v gd cond, a/c, AM/ FM, 74K, updated system, \$2300. Call x3-7132.
  - shor
- 1985 Audi 5000S sta wgn, grey metallic, leather, pwr htd seats, high mileage, \$2800 negot. Eric, Linc x3734 or Bedford 275-1789.
- 1986 Honda Prelude 2.0 si, mint cond, loaded, \$8500. Kim x3-5912 or 508-655-6952.
- 1986 Nissan SX 200 coupe, red, v clean, nw batt/ trs/clutch, 5-sp, a/c, AM/FM Blaupunkt, 79K hwy, moving abroad, book \$4500, askg \$3500 or bst. Vidya x3-1853 or 969-4708.
- 1987 Dodge Colt DL, 3-dr, 5-sp, 76K, grt stereo cass, AAA diagnosed, well maint, \$2200. Peter x3-2430 or 323-4292.
- 1988 Chevy Beretta, 33K, AM/FM/cass, a/c, pw, pl, grt mech cond, take over payments. John x3-3207.
- 1988 Nissan Pulsar NS, 5-sp, black, T roof, AM/ FM/cass, nw brks/trs, exc maint, 52K, \$7000. Tom 617-254-9090.
- 1989 Toyota Camry, auto, a/c, stereo cassette, cruise cont, pw, pl, 22K, grey, exc cond, \$9800 or bst. Li x3-0991.

- avail 4/1, storage, w/d in bsmt, nr buses to Harv Sq, nr buses, \$705/mo htd. Phyllis x3-0736 or 508-650-9271.
- Arlington: sunny 2BR apt, quiet, incl sunrm, nat wdwrk, hdwd flrs, exc cond, gas ht, prkg, 1 min to T, \$800/mo+. Maureen 641-3056.
- Cambridge: single family 3BR, 1 1/2 bath, LR, DR, full appl ktchn, hdwd flrs, nr MIT & T, \$1050/mo. Call 508-664-0150.
- 8916 aftr 4pm.
- Draper x8-4118 or 864-7725.
- 4288 or 617-643-0771.
- Charlestown: 2+BR, sunny, remodeled, fully applianced, hdwd flrs, \$900 htd. Jim or Deborah Wilson 617-241-8778.
- hdwd flrs, w/d in bsmt, \$6000 worth of nw ceilings & electrical, v low fees, great, safe nbhd, 3 min to buses & T, \$135,000. Anne x3-1916.

## HIT & RUN

# Accident Injures Postdoctoral Fellow

n MIT postdoctoral fellow, bicy-Acling to her E17 lab at 3:30am Saturday, March 30, was hit by a car and dragged under the vehicle with her bike nearly 100 yards by a driver who left the scene.

Keiko Udaka sustained serious fractures to vertebrae in her back and was taken to Massachusetts General Hospital where she is in intensive care and scheduled to undergo surgery.

Cambridge police, based on reports from people who saw the incident, are looking for a white male between 30 and 35 years old who was driving a dark blue sedan. The Boston Herald's account of the incident quoted Police Lt. James C. Grady as saving some witnesses thought that the driver hit the bicycle on purpose. Others in the area said the driver stopped twice in an apparent effort to dislodge the bike and Dr. Udaka from under his car. Some people told police the driver got out once and looked under his car, then drove off again.

The incident occurred near the intersection of Main and Windsor Streets not far from Central Square. Those who may have information are asked to call Cambridge Police at 349-3354.

Dr. Udaka, 33, received the MD degree and the PhD in biochemistry from Ehime University in Japan. She has been at MIT for two years, working in Professor Herman N. Eisen's lab at the Center for Cancer Research. She was to leave MIT in about two months to begin a new position at the Max Planck Institute in Germany, said

- Sandwich: ideal retirement home for sale, custom ranch, ktchn, LR, dining, 2BR, 11/2 baths, deck, laundry, 2-car gar, deeded beach, clubhse, tennis, nr golf, \$129,900. Call 508-428-6537.
- Sublet: May-Sept, poss longer, 2BR nr Davis Sq Red line & Porter Sq, \$600. Lisa x3-5695.

Mt Wash valley lakeside cottage, sandy beach, slps 8, furn, w/w, all appl, rowboat, canoe, nr Kancamagus, N Conway, avail 7/20-7/27, \$700/wk. Call Linc x5431 or 508-779-6473.

#### WANTED

Wanted: sturdy, inexpensive city bike, 3-sp or up; Super 8 camera, projector, editing equipment. Jennifer x8-5620.

Porter, Draper x8-3288 or 508-443-0067.

#### ROOMMATES

- Arlington: rm for rent in lrg home nr lake & golf course, 15 min Hvd Sq, furn, linens, own TV & refrig, use of ktchn, w&d, prkg, avail now, bus to Alewife. Call x3-2534 or 648-7425.
- Belmont: hsmt wanted to shr 5BR hse w/yd & offst prkg, close to #74 & #78 bus to Hvd Sq, \$340/mo+. Jeff x3-8756 or 489-2130.
- Belmont: 1F non-smkr for 2BR, d/w, disp, prkg, on bus to Hvd Sq, Irg ktchn, \$325+. Shelly 484-2157.
- Brookline: woman wanted to shr quiet, spacious 3BR apt in house, avail 5/1, on T, \$320/mo. Caroline x3-4721.
- Cambridge, N: rmmte wanted to shr 3BR hse nr

Theodore Tsomides, a graduate student in biology, who worked with Dr. Udaka.

"She is a very hard worker," he said. "We all work hard here, but she makes the rest of us look lazy, putting in 12 hours a day at the minimum. She was on her way back to the lab (Dr. Udaka lives near Central Square) to check on an experiment she had set up earlier that day," Mr. Tsomides said.

"She has many friends and is the sweetest person anyone could ever imagine," he said.

Mr. Tsomides saw Dr. Udaka at the hospital briefly on Saturday. She was alert, he said. He believes the bike helmet she was wearing prevented any head injury. "Any of her friends who want to send her a card can mail it to the lab, E17-128, and we'll see that it gets to her." Mr. Tsomides said.

Professor Eisen, who has visited Dr. Udaka daily at the hospital, says her spirits are high. "I've never seen anyone so battered, but she is tough and very healthy," Professor Eisen said.

Japanese colleagues working in Professor Susumu Tonegawa's laboratory were able to get in touch with Dr. Udaka's family on Saturday, Mr. Tsomides said. She has many relatives in Japan, but no family in this country.

representatives of that organization told

Chief Glavin and other MIT officials

that the BSU had nothing to do with the

event. The name of the student listed

on the Campus Activities Office ap-

plication form is not one of the five

BSU members the group says is autho-

rized by the BSU to transact business in

the name of the group. The Office of

the Dean for Student Affairs and the

Campus Police are investigating this

ently not together at the event, Chief

Glavin said. State Police investigators

who spoke with Mr. Halfkenny said he

told them he saw a group surrounding

Mr. Hector and went toward them, only

to be confronted himself. He said he

then felt what he thought were two

punches in the back. The blows were

knife stabs, police said. Mr. Halfkenny

fell to the floor and was stabbed three

curred swiftly, just as the dance was to

close. Many of those attending rushed

to leave, some shouting that there was

a fight. Campus Police officers on duty

at the event aided the victims and am-

Chief Glavin said the attacks oc-

The stabbing victims were appar-

aspect of the situation.

more times, police said.

bulances were called.

# Stabbings Under Investigation

IT, Cambridge and State Police are investigating two stabbings that occurred in the Student Center shortly before 1am Sunday, March 31.

The stabbing victims, neither from MIT, were identified by Campus Police as Damian Halfkenny, 20, of Faver Street, Mattapan, who was stabbed five times, and Fred Hector, 20, of 107 Norfolk St., Cambridge, who was stabbed once. Police said Halfkenny is a student at Northeastern University and Hector a student at Cambridge Rindge and Latin School. They were taken to Beth Israel Hospital. Halfkenny was listed as in stable condition Tuesday. Hector was treated but did not require admission to the hospital.

Campus Police Chief Anne P. Glavin said the investigation is focused on a group of young men from Cambridge who are believed to have been connected to both attacks. Police are not speculating publicly on the motives, the chief said. No arrests have been made.

The event underway at the time of the stabbings was listed on records at the Campus Activities Office and in the office of the Dean for Student Affairs as being conducted by the Black Student Union (BSU), but on Monday

## HYPERMEDIA

# **Conference Planned April 6**

The MIT Writing Program will host an international conference on "The Social Creation of Knowledge: Multimedia and Information Technologies in the University," Saturday, April 6.

The conference will feature presentations, workshops, and demonstrations on using multimedia and information technologies to support collaborative research, learning, and instruction. Edward Barrett, senior lecturer in the Writing Program, is the conference organizer.

Keynote speakers will be Ben Shneiderman of the University of Maryland and Thomas Malone of the Sloan School of Management. Twentyseven presentations will be offered. some concurrently-ranging from multimedia In management. hypermedia in writing instruction and information storage and retrieval.

language learning, hypertext in hypermedia and medical education, "virtual museums," and multimedia in engineering instruction and physics.

The conference will build on themes of two earlier MIT conferences on writing and computers that Mr. Barrett directed. These stressed a social construction model for developing computing technology to support documentation and the teaching of writing.

This year's conference develops the earlier themes with more focus on hypertext and hypermedia systems. This enlarged scope includes not only writing, but subject areas in science, engineering, and other humanities subjects. Mr. Barrett says there are plans for future conferences on hypertext and hypermedia tools and technologies for

# HOUSING

- Cambridge: 3-rm apt, rent controlled. Call 729-

- prkg, walk to MIT, \$650; also spacious sunny 3BR, 2b hdwd flrs nr MIT, \$1300. John,
- Cape Cod: vacation, Bass Rvr, 4BR mod home, 3 blocks to ocean beach on Nantucket Sound, avail May 1 - Oct 1, \$700/wk. Stanley x3-
- Jamaica Plain: beaut 3BR condo, 1325 s.f., sunny,

# Arlington: sunny 1BR apt, lrg LR, ktchn & bath,

Cambridge: nicely furn comf 1BR/studio, laundry,

# Wanted: anyone interested in joining me on a 2-day, 170 mile bicycle ride to raise funds for the National Multiple Sclerosis Society. Bruce

Kitchen table, rd, white, \$45; Windsor chr, \$30; coffee tbl, \$35; twin mattress, \$10; airline sky-kennel, sm, \$15; GE portable a/c, \$50; a/c casement, \$75. Call 332-8251.

DP Airgometer exercise bicycle, digital display,

Persian rugs: Hamadan 2'6" x 4'2", \$250; Hamadan 2'3" x 3', \$150; Dargazine 8' x 5', \$675; Indian Orientals 6' x 4', \$150 & 5' x 3', \$50. Call x3-6081

Printers: Epson FX-80, many spare ribbons, little used, \$85; Silver Reed 550 daisy-wheel printer, add'l fonts & ribbons, \$75. Dave x3-5121 or 617-729-2203.

Red Sox season ticket, to share, 1x or often. grandstand, weekends pair, nights single. Nancy 734-4763.

Moving sale: 19" color TV, \$100; microwave (Kenmore 0.8 cf), \$70; Hoover vac clnr (nw \$265), \$100; study chrs, \$25 ea; fan, \$10; metal bkshlf, \$20. Call x3-1853 or 783-1475.

M's Triumph 3-sp bicycle (1 sp doesn't work), 23" frame; folding baby st, minus 1 foot support. as is \$35; Bianchi M's "turbo" saddle, \$15. Call 547-5357 lv mssg.

Lexington: home for rent, 8/91-7/92 (flex), 25 min MIT, 15 min Red Line, 4BR, 2 studies, lrg mod ktchn, spac yd, consvtn land, exc schools & facils, \$2200/mo +. Call x3-2449 or 863-5181.

Loon Mt/Lincoln NH: ski downhill & x-c, reasonable rates wkdys/wknds, 2BR/2b, riverfront condo slps 6, clubhse & ski shuttlebus on premises. Art x3-8395 or 472-8551.

Loon Mt: all season rental, village, not too late for skiing or early for hiking, 2BR, 2b, all recre-ational facilities. Jack x3-2772 or 396-4221 eves.

Maine: mid-coast, comfortable 2BR cottage for rent, well-equipped, nr water, avail 6/15 - 7/ 13 & mo of Sept, \$300/wk. Linda x3-6657 or 723-2756.

Maine: island hse, ocean vw, equipped, mod bath, quarry swimming, cycling, walk to shops, grt restaurant, nature preserves, 3.5 hr N of Boston, \$360/wk. Call x3-3490 or 547-1311.

Malden: sunny 5-rm condo, hdwd flrs, natural w/ w, newer ht & elect, lrg cabinet ktchn, storage priv porch, no fee, top flr, 2-unit bldg, bus line, \$95,000. Call 324-7149 lv mssg.

Davis Sq T, fully furn, incl w/d, VCR, CD. \$375/mo. David 864-7633.

Watertown: master suite w/priv bath & office, nice ktchn, w/d, gar, quiet safe nbrhd, nr T. \$450/mo. Call x3-8510 or 926-6959.

#### LOST AND FOUND

Lost: tortoise frame reading glasses in brown case, missing 3/9/91, possibly from MIT Chapel. If found, please contact M. Keady x3-6799.

#### MISCELLANEOUS

Housecleaning: reliable, energetic housecleaner w/exc references, have car, so anywhere in Cambridge & surrounding suburbs is okay. Dita 666-0355.

Person wanted to develop my invention; you need a machine shop & elec, chem, mech lab; sm item so no lrg wrkspc needed; pay negot: hourly or shares. Call 864-2483.

Detailed proofreading, editing, & fast, accurate word processing of papers, theses or reports on Mac SE. Reas rates, free pick up & delivery Call x3-5714 or aftr 3pm 648-4922.

# Melcher Remembrance Set

A remembrance of Professor James R. Melcher will be held in Edgerton Hall (Rm 34-101) Thursday, April 11, at 4pm. Dr. Melcher, the Julius A. Stratton Professor of electrical engineering and physics, was director of the Laboratory for Electromagnetic and Electronic Systems. He died in January at the age of 54, having been a member of the faculty since 1962.

Speakers for the remembrance include Professor Paul L. Penfield Jr., head of the Department of Electrical Engineering and Computer Science; Professor Emeritus Thomas H. Lee; Professors Jeffrey H. Lang, Alan J. Grodzinsky, Markus Zahn, and Institute Professor Hermann A. Haus. A videotape, "Jim Melcher in Action," also will be shown. The remembrance will be followed by a reception in the Grier Room.

Professor Melcher's thoughts on energy policy and the state of the nation as he struggled with his illness are summarized as the major article in the MIT section of April's Technology Review.

## FIORI H. PUNTIRI

A funeral Mass was held March 26 for Fiori H. Puntiri, 74, of Holbrook, a former service staff member in the Office of Laboratory Supplies, who died March 21. Mr. Puntiri worked at MIT from 1951 until his retirement in 1981

He leaves his wife, Grace M. (Antonio), and a daughter, Patricia Kinahan of Quincy.



# April at MIT

# 3 Weds

#### **Best Band Finale**

Final round of competition in the Student Center Committee Annual Battle of the Bands. 9-1am, Lobdell Dining Hall, Stratton Student Center. 253-3916

# **4** Thurs

Guitar in Chapel Stephen Aron, guitar. 12noon, MIT Chapel.

### **Public Artist Speaks**

Krzysztof Wodiczko, public projection artist/visiting artist, MIT Visual Arts Program, April 2-22. 7:30pm, Rm 9-150. 253-7791

#### Last Chance at Museum

Works by Robert Preusser. Overview of paintings done since the 1930s by former MIT Professor of Visual Design, Department of Architecture. MIT Museum, 265 Mass Ave, Tues-Fri 9-5, Sat-Sun 1-5. 253-4444

# 5 Fri

## Advanced Performance Violin Amy Huey-Zu Lin '92, violin.

Mendelssohn's Concerto in E Minor and Stravinsky's Suite Italienne. 12noon, Killian Hall (14W-111).

#### **BSU Film**

Zoot Suit. Black Student Union Film Series. Depiction of the actual 1942 L.A. trial of a group of Chicanos for the murder of an opposing gang member. 7-9pm, Black Student Union Lounge (Rm 50-105). 253-4861

#### **Hines at MIT**

Abramowitz Memorial Lecture presented by dancer/actor Gregory Hines, below. The Abramowitz Lecture Series was established by William L. Abramowitz '35 as a memorial to his father, with the purpose of bringing celebrated artists to the MIT campus without charge. 8pm, Kresge Auditorium. 253-2877



# 7 Sun

# Pianist Perrone

MIT Affiliated Artist Concert: Eleanor Perrone, piano, below. Bach's English Suite in A Minor, BWV 807; Beethoven's Sonata Op. 31, No. 2; Stravinsky's Sonate (1924); Schubert's Wanderer Fantasie, Op. 15. 3pm, Killian Hall.



# 8 Mon

Urban Design Video Man With a Movie Camera, 1928, directed by Dziga Vertos. 6:30pm, Rm 10-485. 253-7305

# 10 Weds

## **Visual Poetry**

"Retinal Poetry: Experiments in Visual Language Seen through the Scanning Laser Ophthalmoscope," a project using medical technology to create art and poetry, by CAVS Exhibits and Projects Director Elizabeth Goldring and Robert Webb of the Eye Research Institute and inventor of the SLO. 5:15 & 8pm, CAVS (W11). Seating limited; call to reserve. 253-4415

# 11 Thurs

## Ragtime to Be-Bop

Prosperity of Jazz with Gary Spellissey, Dave Whitney, Bill Novick, Chris Rathburn, Gray Sargent. 12noon, MIT Chapel.

#### Architecture Lecture

Michael Dennis, architect, Cornell University. 7:30pm, Rm 9-150. 253-7791

### Master of Science

An irreverent comical look at science and scientists. Includes "An Act of War" and a live demonstration of her new Snackmaster theory by Betsy Salkind '86, below, feminist comedienne and instructor of an improvisational comedy workshop at MIT. 8pm, Rm 35-225. 253-2877

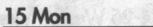


# 12-13 Fri/Sat

## Song and Dance

Original dances and songs by MIT Artists-in-Residence. Beth Soll & Company, below, perform the premiere of Sanddance, a work based on Aboriginal songlines. Beth Soll, choreographer; Richard Cornell, composer. Beth Soll & Company also perform the Boston premiere of Soll's Outset, a satirical love duet set in an abstract gas station with music by Muddy Waters, Blind Lemon Jefferson and Art Tatum. Karol Bennett and John McDonald perform works by members of the MIT composition faculty, including two song cycles: Simple Daylight by MIT Professor John/ bison, and The Great m by MIT Associate Peter Child. Also, Fractal-Pani Profes Head, a work for piano by Prof. Evan Ziporyn. 8pm, Kresge Auditorium. \$12, \$5 seniors/MIT students. 253-2877





### Koyaanisquatsi

Environmental Design Group Urban Video. 6:30pm, Bartos Theater, Wiesner Bldg (E15). 253-7305

## **Child World Premiere**

Charles River Concert features world premiere of Sonatina, composed and performed by Peter Child, MIT Music and Theater Arts associate professor. Also, J.S. Bach's Chromatic Fantasia and Fugue; Chopin's Four Mazurkas, Opus 41 and Fantasie in F Minor; Brody's *Apparitions* (1981); Robert Schumann's *Carnival.* \$10, \$8. 8pm, Boston University's Tsai Performance Center, 685 Commonwealth Ave. 262-0650

# 16 Tues

#### **Minority Theater**

Los Perez, an original play by Guillermo A. Preciado '92 presented by Theater Workshop for Minority Students. 8pm, Kresge Auditorium. 253-2877

# 17 Weds

## Arts Grant Deadline

Final round of applications for 1990-91 for funding of arts activities and projects by the Council for the Arts at MIT. Forms are available at the Office of the Arts, E15-205. 253-4003



# 18 Thurs

### Haydn and Mozart

Anne Hooper, violin; James Johnston, viola; Sandi-Jo Malmon, cello. Haydn Trio in G; Mozart Divertimento in Eb, K.V. 563. 12noon, MIT Chapel.

Architectural History Lecture Akos Moravanszky, historian, Hungary. 7:30pm, Rm 9-150. 253-7791

#### **Two Poets Read**

Rosanne Wasserman and Pierre Martory. Both recently had their first books of poetry published by Groundwater Press, which Ms. Wasserman edits. She currently teaches in the New York City area. Martory lives in Paris where for many years he was arts editor for Paris Match. He has published several novels. 8pm, Bartos Theater, Wiesner Bldg. 253-9469

# 19 Fri

## Baritone in Killian

Advanced Music Performance graduate student Kenneth Goodson, baritone, below. Selections from Fauré's *La Bonne Chanson*; Ravel's *Histoires Naturelles*; Wolf's

# 19 Fri

## "Cypher" Concert

New music and improvisations for human performers and an interactive computer music system. Program includes two pieces composed by Robert Rowe, MIT Media Lab PhD candidate, using "Cypher," an interactive program written by the composer which responds musically to human performances: Banff Sketches, a duet for pianist and computer; and Rant, a worldpremiere for ensemble, soprano (Jane Manning from Britain), and computer, based on a text by Dianne di Prima, conducted by Tod Machover. Composer Greg Tucker, MIT Media Lab research engineer, premieres a new work for two MIDI keyboards, played by John MacDonald and Kathleen Supové, both MIT Artists-in-Residence. Also, jazz saxophone player Steve Coleman improvises with "Cypher." 8pm, Experimental Media Facility, (The Cube). \$8, \$4 students. 253-0649

Paksmit Cultural Evening Pakistani Students' Association at MIT show featuring a play, skits, folk singing and dancing. 8:30pm, Kresge Auditorium. Tickets TBA.

# 19-21 Fri/Sun

253-0003

Merrily We Roll Along Musical Theater Guild production of the Stephen Sondheim musical. \$8, \$7 seniors/MIT community, \$6 students; \$5 MIT/Wellesley students. 8pm, Sala de Puerto Rico, Student Center. 253-6294



# 20-21 Sat/Sun

More Mikado See 12-14. Sat-2pm, Sat/Sun-8pm.



# 6 Sat

#### Last Stop, Tibet Closing day for Where the Earth Meets the Sky: Photographs of Life on the Tibetan Plateau, color photographs by graduate student Eric Fuchs. Wiesner Student Art Gallery. 253-3913

# 12 Fri

Lunchtime Piano Advanced Music Performance graduate student Jee-Hoon Yap, piano. Brahms, Variations on a Theme by Paganini Bk. I & II; Mozart, C minor Fantasie and Sonata; Harbison, Sonata. 12noon, Killian Hall. Juan Francesco Elso Padilla. First US showing of works blending secularism, mysticism, magic and ethics by a Cuban sculptor who died of leukemia at age 32. Draws on both Afro-Cuban and Indian traditions.

12-14 Fri/Sun

\$9, \$7 seniors/students/MIT community, \$6 MIT students.

"The Town of Titipu" presented by

the MIT Gilbert & Sullivan Society. Fri/Sun-8pm, Sat-2pm, Rm 54-100.

The Mikado Opens

492-6983

14 Sun

List Closings

Robert Arneson: The Jackson Pollock Series. Dramatic large portrait busts and heads of Pollock; ceramic recreations of Pollock's final car crash; and a full-scale sculptural interpretation of one of Pollock's major paintings.

Barbara Broughel: Storytelling Chairs. Ensemble of eight richly doctored and decorated early American chairs reflecting on the extent to which colonial American culture was indebted to Iroquois example and precedent. Weekdays 12-6, Weekends 1-5. 253-4680 Selections from *Italienisches Liederbuch*. 12noon, Killian Hall.



#### Who Killed Vincent Chen?

Black Student Union Film. A look at the American trial process after a Chinese American is murdered. 7-9pm, Black Student Union Lounge (Rm 50-105). 253-4861

# 21 Sun

**Emerson Quartet** 

MIT Faculty Series. Emerson Quartet with MIT Professor Marcus Thompson, viola. Mozart, Quintets (Continued on following page)

# 21 Sun

for Strings, K. 515, 516, and Adagio and Fugue K. 546. 4pm, Kresge Auditorium. Marcus Thompson, viola, below.



# 22 Mon

Urban Design Video Miracle Mile, 1988, by Steve deJarnatt. 6:30pm, Rm 10-485. 253-7305

Performance Masterclass Final session conducted by Prof. David Epstein, below, for performers on all instruments. 7pm, Killian Hall.



#### **Japanese Film**

*Tora-san Goes North.* MIT Japan Program/Japanese Language Program at MIT presents the 38th in the world's longest continuous feature film series. In this film, Tora-san, a lovable, boorish, itinerant peddler, always unlucky in love, travels to Japan's northernmost island of Hokkaido, below, where he encounters a veterinarian, Junkichi (Toshiro Mifune), and becomes involved in his life. 7:30pm, Rm 10-250. \$2 donation. 253-2839



# 24-25 Weds/Thurs 26-2

Buy A Pot Student Art Association ceramics sale. 9-5pm, Lobby 10. 253-7019

# 25 Thurs

Cello in Chapel Michal Schmidt, cello. 12noon, MIT Chapel.

#### Poetry at the Media Lab

Stanley Kunitz. Born in 1905, Kunitz has published poetry, translations and essays since 1928, and has taught at universities including Yale, Brandeis, and Clark. His prizes and honors include the 1959 Pulitzer Prize for Poetry, the Consultantship in Poetry to the Library of Congress in 1974 and 1975, election to the 50-member American Academy of Arts and Letters in 1975, and Chancellorship of the Academy of American Poets. 7:30pm, Bartos Theater, Wiesner Bldg. 253-0312

# 25-27 Thurs/Sat

More Merrily We Roll Along See 19-21 Fri/Sun above.

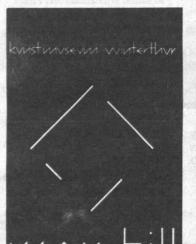
# 26 Fri

#### Two for Lunch Two Advanced Music Performance

Solo Recitals: Eran Egozy '93, clarinet. Bernstein's Sonata for Clarinet and Piano; Poulenc's Sonata for Clarinet and Bassoon; Tomasi's Concerto. And, graduate student Michael Valdez, jazz piano. Works of Gershwin, Monk, Parker and others with Steven Conahan '93, acoustic bass and Keith M. Swartz. 12noon, Killian Hall.

#### Poster Show Opening Reception Affissi! Affiches! Plakate! Posters!

Agrissi Agrices: Plakate: Posters: Swiss Poster Art 1906-1990. Exhibit includes 90 posters, below, for consumer products, tourism, art exhibitions, and public service by Swiss designers, reflecting the three dominant cultures of Switzerland (Swiss-German, Italian, French), and representing many of the European art movements since 1900. Swiss refreshments. 5-7pm, MIT Museum. 253-4444



# 26-28 Fri/Sun

#### Scene Night

MIT Shakespeare Ensemble presentation of student-directed scenes from plays by Shakespeare and others. 8pm, Killian Hall. 253-2903

#### **Original Melodrama**

*The Helpless Heroine*, student workshop production of an original student-written melodrama, presented by Artistic License. 5:30pm, Kresge Side Lawn. 253-2877

# 27 Sat

#### Poster Symposium

Swiss Poster Art: Origins and Designs: "A Contextual View of Graphic Design and the Poster". See below. Prof. Roger Remington, Director, Graphic Design Archives, Rochester Institute of Technology and "Six Posters I Wish I Had Designed and Why"- Chris Pullman, Vice President of Design, WGBH-Boston. 2pm, MIT Museum. 253-4444



MIT Concert Band. John Corley, director, below. The MIT Concert Band has been known since 1953 for its performance and commissioning of modern works. 8pm, Kresge Auditorium.



## 28 Sun

Special Children's Concert Technology Children's Center (TCC) 25th Birthday Concert. Rick Charette and the Bubble Gum Band. Profits to the Technology Children's Center Scholarship Fund. 2:30pm,



Columbia University Orchestra George Rothman, conductor. Performing at MIT as part of an exchange program with the MIT Symphony Orchestra. Shostakovich's Festival Overture; Sibelius' Violin Concerto with Victor Schultz, winner, Carnegie Hall International Music Competition; Hindemith's Mathis der Maler. 8pm, Kresge Auditorium.

# 29 Mon

### Tokyo-Ga

Environmental Design Group Urban Video by director Wim Wenders (1985). 6:30pm, Bartos Theater, Wiesner Bldg. 253-7305

#### Wind Masterclass

Virtuoso flutist Robert Stallman, below, former student of Jean-Pierre Rampal, conducts a masterclass for flute, clarinet, bassoon. 7-9pm, Killian Hall.



# All Month

Compton Gallery Hack Show Crazy After Calculus: Humor at MIT Photographs, cartoons, and a collection of artifacts documenting a rich history of MIT wit and wizardry shown through "hacks" - elaborate practical jokes involving humor and/or engineering technique. See below. Weekdays 9-5. Off Lobby 10. 253-4444

# **MIT Museum**

## **Ongoing Exhibits**

Doc Edgerton: Stopping Time. Photographs, instruments, and memorabilia documenting the late Harold Edgerton's invention and use of the strobe light.

*Light Sculptures by Bill Parker.* Vivid interactive light sculptures, each with its own personality and set of moods. See photo below.



Holography: Types and Applications. Scientific, medical, technical and artistic imaging drawn from the work of the Spatial Imaging Group at MIT's Media Lab, below.



Math in 3D: Geometric Sculptures by Morton G. Bradley, Jr. Colorful revolving sculptures based on mathematical formulae.

MIT Museum Hours Tues-Fri 9-5, Weekends 12-4. Closed holidays. 265 Massachusetts Avenue Cambridge, MA

All events are free unless prices are noted. All concerts: 253-9800 unless otherwise noted. MIT Arts Hotline: 253-ARTS. Month-at-a-Glace is produced by the MIT Office of the Arts (253-4003) and ARTSNET. Celia Metcalf, design.



# 24 Weds

#### Writer Reads

Boston-resident William Corbett, author of several books of poetry, most recently *On Blue Note*. 8pm, Rm 14E-304. 253-9469

# 9 april-22 12/ai 1960 120 4-17 2i-50 0-12+14-1

#### Watercolors at Museum

Lanscapes, primarily of Mexico and Maine by Freddy Homburger, physician, scientist, diplomat, artist. MIT Museum. 253-4444

#### Aardvark

MIT Faculty Concert. The Aardvark Jazz Orchestra, directed by trumpeter Mark Harvey, who also teaches at MIT. 8pm, Kresge Auditorium. Kresge Auditorium. \$6. 253-5907

#### **MIT Women's Chorale**

Nancy Wanger, director. Program includes *Laetatus Sum* by Niccola Porpora, and selections by Mozart, Handel, Copland, Irving Fine, and Randall Thompson. 3pm, Hilles Library, Radcliffe College, Shepard and Garden Streets. 661-3385

#### **Bassoon Recital**

Senior recital by Erika Anderson '91, bassoon, above. Bach's Sonata for viola da gamba No. 2 in D Major; Beethoven's Sonata for Cello and Piano, No. 1 in F Major; Francaix's Divertissement for Bassoon and Strings; Villa-Lobos' Bachianas Brasileiras No. 6. 8pm, Killian Hall.