



IN THE AIR—Dancers Robin Offley of the Admissions Office and Jonathan Clemons of the A. Major Dance company leap skyward in celebration of Martin Luther King's birthday. The two performed for MIT's 19th annual commemoration of the late civil rights leader's birthday. Principals in the program watch from behind. **Photo by Donna Coveney**

NEW GIFT

Tang Family Gives \$4.7M to MIT

M IT has recently announced a gift of \$4.7 from the Tang family of California and Hong Kong. The Tangs, who have been represented at MIT for three generations, have designated the funds for two purposes: \$3.5 million will go toward the construction of the Jack C. Tang Center for Management Education, and \$1.2 million will be added to the Tang Scholarship Fund at MIT. This addition will bring the total of the Tang scholarship endowment to \$2.7 million, making it one of the largest scholarship funds at MIT.

The new Jack C. Tang Center, a planned four-story addition to Building E51 at the corner of Amherst and Wadsworth Streets, will be used primarily by the Sloan School of Management and the School of Humanities and Social Sciences. It will house a 300seat auditorium, three case-method classrooms of 90-100 seats each, a student-faculty lounge and a number of smaller rooms that will serve as student study and meeting spaces and interview rooms for students and recruiters.

"The Tangs have once again made a most generous gift to MIT and to education. They have been wonderful friends for many years," said MIT President Charles M. Vest in announcing the gift. "It is heartening to know that the family shares so deeply our commitment to scholarship and teaching, and we are very grateful.'

Lester Thurow, dean of the Sloan School, says of the proposed center, "Team teaching and student collaboration have become very important to management education over the past decade. Until now, however, our students lacked the facilities to meet and work together easily. I think we are going to look back on the Tang gift as one of

the best investments for our students." Ping Yuan Tang, the first in the family to attend MIT, received an SB degree in management in 1923. He returned to his native Shanghai and built up a conglomerate in textiles, cement and flour. Forced to flee China in 1948, he went to Hong Kong and established the South Sea Textile Manufacturing Company

His son, Jack C. Tang, graduated from MIT in 1949 with an SB in chemical engineering. A prominent business leader in Hong Kong, he succeeded to the chairmanship of South Sea Textile at his father's death in 1971. He has been chairman of the MIT Club of Hong Kong and a member of the MIT **Corporation Development Committee** and has been active in fundraising for MIT in Asia.

Hisson, Martin Y. Tang, who earned (continued on page 7)

1,500 PIECES **MIT Museum Acquires Holography Collection**

By Charles H. Ball News Office

T he MIT Museum has obtained the world's premier collection of historical, technical and artistic holography.

The announcement of the acquisition was made by Warren A. Seamans, the museum director, and by Dr. Stephen A. Benton, Allen Professor of Media Arts and Sciences in MIT's Media Laboratory and a leading researcher in holography and 3-D imaging

The collection was acquired at bankruptcy auction from the Museum of Holography of New York City for \$180,000, Mr. Seamans said. The funds were provided by "a wide variety of donors," he said, "people who did not want to see the collection broken up."

"We are very pleased that this outstanding collection, of great historical and artistic value, has found a permanent and safe home where it can be enjoyed by new audiences," Mr. Seamans said. "And we are particularly pleased that this home is at MIT,

VISITS NEXT WEEK

where so much work in holography has gone on in recent years, especially at the Media Laboratory and at the Center for Advanced Visual Studies."

Bidders from across the United States, and from England, France and Germany, were on hand for the auction. They included small collectors hoping to obtain individual pieces, but MIT's bulk bid-one of three-won out because it was slightly greater than the sum of the bids on individual items.

"More than 100 bidding tickets had been given out and bidding was vigorous and spirited," Mr. Seamans said, "but we had done our homework, going to New York prior to the auction to examine and price the collection, and we were delighted that our bid was accepted.

Both Mr. Seamans and Professor Benton said they had set out with the idea of preserving the collection in its entirety. "The collection could have gone 100 different ways," Professor Benton said. In a letter to the International Working Group on Holography, Professor Benton noted that the collec-(continued on page 7)

Harding Is Named 3rd **MLK Visiting Scholar**

widely-known black scholar, au-A thor and civil rights activist will come to the campus next week as the third Martin Luther King Jr. Visiting Scholar at MIT.

He is Dr. Vincent Harding, professor of religion and social transformation at The Iliff School of Theology on the University of Denver campus in Colorado.

The visiting scholar program was begun in 1991 as an extension of MIT's annual celebration of Dr. King's birthday, which was held this

year January 15 and 16.

Dr. Harding will visit MIT and Cambridge for three days next week on Thursday, Friday and Saturday, February 4-6, and again for two days sometime in March, according to Assistant Professor Leo Osgood, who co-chaired the planning committee for the Martin Luther King Jr. observance.

His schedule next week includes a talk at a forum Thursday evening, Feb. 4, sponsored by the Department of Urban Studies and Planning; breakfast with Community Fellows Program participants on Friday morning, Feb. 5, interaction with students from Cambridge Rindge and Latin High School, also on Friday morning; a possible meeting with students, staff and faculty of Roxbury Community College Friday afternoon; and a minority community luncheon at MIT on Saturday, Feb. 6, from noon-2:30, at which he

MIT WEST Industrial Liaison Program Opens Palo Alto Office

IT has announced the establish- ulty from MIT's Sloan School of Man- helps companies draw on the expertise and Tektronix, Inc. There are now

LVL ment of a West Coast office to assist more than 20 companies there which are members of MIT's Industrial Liaison Program. The formal announcement was made at an MIT-sponsored conference January 22 in Silicon Valley

The Palo Alto conference, "Doing Business in the Pacific Rim: The High-Tech Perspective," drew together facagement, industry representatives, and other noted experts to define and discuss the strategic challenges facing high-tech management in the Pacific Rim.

At the conference, MIT President Charles M. Vest and Provost Mark S. Wrighton announced the opening of theWest Coast office for MIT's Industrial Liaison Program, a service that

Epoxy Smoke Clears Building

A can of epoxy overheated in a basement laboratory of Building 37 Monday afternoon, giving off noisome smoke that led to the evacuation of the Vassar Street building, which houses the Space Engineering Research Center, for the rest of the day.

Paul A. Lagace, associate professor of aeronautics and astronautics, said the incident occurred in his department's Technology Labora-

tory for Advanced Composites. A student was heating the epoxy in an oven to consolidate it, he said, when a chemical reaction caused the glue to overheat and char. There was no fire and the epoxy had been cooled with chemical extinguishers before Cambridge firefighters arrived, he said.

Two Campus Police officers who inhaled the smoke were examined at the Medical Department and released.

and resources of MIT to inform and catalyze their technology strategies. The office in Palo Alto, in the heart of Silicon Valley, will be headed by Howard R. Engelson, a former Grumman Corporation vice president who has been with MIT since 1987. Mr. Engelson is a senior industrial liaison officer at MIT.

"A growing number of Industrial Liaison Program members are located on the West Coast," Dr. Vest said. "Because of the East Coast-West Coast time difference, the new office will effectively lengthen the business day by three hours and will allow the Program to stay in closer touch with the needs and interests of West Coast firms. helping them to build stronger and mutually beneficial ties to MIT."

About 25 Liaison Program members currently have major facilities on the west coast, including Apple Computer, Inc.; The Boeing Company; Hughes Aircraft Co.; Intel Corporation; Sun Microsystems; TRW, Inc.; nearly 235 members worldwide

MIT has had a strong impact on Silicon Valley. A recent study conducted by the Chase Manhattan Corporation showed that MIT alumni have founded nearly 180 companies in northern California, directly or indirectly providing more than 152,000 jobs in the state.

At the conference, Dean Lester C. Thurow of MIT's Sloan School of Management, led off a morning session of presentations by MIT faculty with a talk entitled "The Global Economy." Industry representatives presented their views on the strategic challenges of the Pacific Rim in an afternoon session. Speakers included Takashi Kiuchi, chairman and chief executive officer of Mitsubishi Electronics America; Morris Chang, chairman, Industrial Technology Research, Taiwan; David Brown, former vice chairman and chief operating officer, Quantum Corporation; Peter (continued on page 7)

will give a talk addressing the theme of this year's observance, Where Do We Go From Here? Chaos or Community?

"We are exceedingly fortunate to have Dr. Harding as our visiting scholar," Professor Osgood said. "His accomplishments and dedication to movements for peace and justice speak for themselves, and it is particularly fitting that he once served as director of the Martin Luther King Jr. Memorial Center in Atlanta."

Professor Osgood said the visiting scholar program is being held following the holiday observance, which occurred during IAP, to afford more students and other members of the community an opportunity to participate.

Dr. Harding, 61, was born in New York City. He has a BA in history from City College of New York, an MS in journalism from Columbia University, and both an MA and PhD in history from the University of Chicago.

(continued on page 7)



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

ANNOUNCEMENTS

- Tax Information Workshop for Graduate Students**-Jan 27: For US citizens and permanent residents. Topics will include RA and TA stipend and tuition awards, graduate fellowship stipend and tuition awards, withholding and quarterly estimated taxes. Speakers: Frank Perkins, Dean of the Graduate School; Fred Crowley, Asst. to the Comptroller; tax lawyers from Palmer & Dodge. Spon-sored by the Dean of the Graduate School Office, 3-5pm, Rm 10-250.
- **Engineering Internship Program Orientation** Lecture**-Feb 1: For School of Engineering sophomores. Learn to relate academic program to off-campus work experience in industry/government while earning joint SB/ SM in Engineering, 4-5pm, Rm 9-150. More info: William H. Ramsey, x3-8051.

English Conversation Classes Registration**-Feb 2: Babysitting arrangements are on a first come, first served basis. Sponsored by the Women's League, 9am-11am, Rm 10-105 (Bush Room). Costs: Classes are \$40/semes-ter, babysitting is \$100/semester.

- VI-A Orientation Lecture**-Feb 3: All Course VI Sophomores interested in applying for the EECS Department's VI-A Internship Pro-gram should attend. 3pm, Rm 34-101.
- **Career Services and Preprofessional Advising** Recruitment Presentations**-Jan 28: Charles River Associates, 7-8pm, Rm 4-153. Feb 1: Bear Stearns, 6:30-8:30pm, Rm 4-153. Prudential Insurance Company of America, 7:30-8:30pm, Rm 4-149. Feb 2: Lewtan Technologies, 4:30-6:30pm, Rm 4-145. A.T. Kearney, 5:30-7:30pm, Student Center Dining Rm #1. Feb 3: Vitesse Semi Conductor Corporation, 6-8pm, Rm 4-149. J.P. Morgan, 7-9pm, Rm4-163. Feb 4: TASC, 6-8pm, Rm 4-159. Lotus Development Cor-poration, 7-9pm, Rm 4-153. American Management Systems, Inc., 7-9pm, Rm 4-149.
- A Safe Ride**-Call 253-2997 for a free ride within MIT boundaries. Service operates Sun-Wed 6pm-3am; Thurs-Sat 6pm-4am. Guide to shuttle stops available.
- 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.
- The Furniture Exchange at MIT**-Tues/Wed/ Thu, 10am-4pm, Bldg WW15, 350 Brookline St.
- Language Conversation Exchange**-Internationals and Americans are invited to participate in this program which matches persons interested in practicing a language

Crimewatch

The following incidents were reported to the MIT Campus Police Department between January 8-20:

- Jan 8: Bldg E53: calculator, \$100; Bldg 2: meter stolen, \$200; Faculty Club: wallet stolen from coat, \$300.
- Jan 10: Student Center: grease fire in Networks; Eastgate: disturbance between persons known to each other; Walker Dining: pocketbook left unattended, total value \$220.
- Jan 11: Bldg E17: answering machine, \$150; Johnson Athletic Center: coat left unattended in bleachers was stolen, \$155; Bldg 48 lot: radio stolen from a Hyundai; male arrested for breaking and entering a motor vehicle and other related charges in the Deacon St. lot; attempted larceny of a car from the Deacon St. lot; an MIT officer observed two males acting suspiciously inside a car parked along Memorial Dr. and notified Metro State Police. State police placed them under arrest for outstanding warrants and other charges.
- Jan 12: Bldg 10: malicious damage to desk; Bldg 13: precious metal stolen, \$50; Bldg 10: classical compact disc stolen, \$300; Commuter Lot: rock thrown, breaking car window; Bldg 36: wallet stolen, \$15; Bldg 66: \$20 stolen from an unattended backpack; Pacific St.: radio stolen from a Hyundai; Bldg 26: male arrested for breaking and entering and other related charges; Hayden Library: backpack left unattended, wallet containing \$50 cash plus checks stolen; a non-registered student became emotionally upset while discussing the possibility of a double major and threw a bag of bagels at a professor. Professor did not press charges.
- Jan 13: Dewey Library: backpack left unattended, cash and contents, \$186; report of student not returning after holidays, investigation located party visiting a relative out of state; Student Center: suitcase containing clothing and cash stolen, \$3,720; DuPont: men's locker room, locker broken into, radio & wallet stolen, \$100; Bldg E53: male acting strangely, gone upon Campus Police arrival.
- Jan 14: Bldg 2: suspicious activity; Bldg E19: pocketbooks stolen, \$20; McCormick: harassing phone calls; Bldg 7: obscene phone calls; Sloan Lot: car radio and radar detector stolen from a Saab; Bldg 6: stamped envelopes and other items stolen, \$339.
- Jan 15: Bldg 9: checkbook stolen from backpack left unattended; Bldg 4:

- and getting to know someone from another country. Presently, there is a need for English partners to fill continued requests of internationals wanting to practice and im-prove their English. Native Russian, German, Swedish, Arabic, Swahili, Thai and especially Italian speakers also needed for English speakers wanting to practice these languages. Sponsored by the Wives' Group, call x3-1614 for more information
- Arts Hotline-Recorded information on all art events at MIT may be obtained by dialing x3-ARTS. Material is updated every Monday

RELIGIOUS ACTIVITIES

- The Chapel is open for private meditation 7am-11pm daily.
- Baptist Student Fellowship at MIT**-Meet for supper on Tuesdays at 5:15pm at 312 Memorial Drive, then move to the chapel across the street for worship at 6pm. Call x3-2328 for more information
- Morning Bible Studies**-Fri, 7:30-8:30am, L-217. Ed Bayliss, x3456 Linc
- Tech Catholic Community**-Student Programs, weekly masses Tues & Thurs 5:05pm, Friday 12:05pm, Saturday 5pm, Sunday 10am & 5pm. Call x3-2981.
- Graduate Christian Fellowship**-We invite you to join us. Open to believers and seekers, GCF is a group of graduate students, faculty, and staff who desire to know God better and reflect the love and presence of Jesus Christ. Weekly meetings in Student Center, DR 1&2, Thursdays at 6pm. We also have Bible studies and a Faith & Technology Roundtable. Info: Andrew Parris x3-2319.
- Christian Science Organization**-Meets Thursdays at 7:30pm in the Chapel. We'll share thoughts about God, hear testimonies of Christian healing and read from the Bible. All are welcome! Call x3-8797 or <lnorford@ eagle.mit.edu> for further information.
- MIT Hillel*-Jan 27: Grad student ski trip. Jan 29: Conservative & Orthodox Services, 5:30pm, Walker Rm 50-010. Shabbat Dinner, 6:45pm, Walker Blue Room. Jan 30: Grad Student Pre-Skate Party, 9pm, Student Center Mezzanine Lounge. All-Hillel Ice Skating Party, 10:30pm, MIT rink.More info: x3-2982.
- MIT Korean Baptist Student Koinonia (KBSK)**-Friday Night Bible Study and Fellowship 7-8:30pm, Private Dining Room #3, 3rd floor of Student Center. Everyone is welcome, refreshments provided. For more information contact Chris Pak x3-9342 or 876-8594.
- Lutheran-Episcopal Ministry at MIT**-Wednesday worship, 5:10pm, MIT Chapel, followed by supper and conversation across the street at 312 Memorial Drive. Contact Rev. Susan P. Thomas x3-2325 or Rev. Scott Paradise x3-2983.
- Lincoln Laboratory Noon Bible Studies*-Tues & Thurs, Kiln Brook III, Rm 239. Annie Lescard, x2899 Linc.
- MIT Muslim Students Association*-5 daily prayers in the prayer room, Ashdown House (Bldg W-1) west bsmt. Friday congregation: 1:10-1:45pm in Ashdown House (Bldg W-1) west bsmt. Info: x8-9755.
- MIT Orthodox Christian Fellowship**-Meets every Wednesday at 5:30pm in Private Din-ing Rm #1 in the Student Ctr for dinner/ fellowship/discussion followed by Vespers (evening prayer) in the MIT Chapel. Open to Eastern Orthodox Christians and those interested in learning about traditional Christian Faith. Info: Mike Decerbo, Dorm x5-7569.
- MIT Vedanta Society*-Meditation and dis course on the Bhagavad Gita with Swami Sarvagatananda, MIT Religious Counselor and Head, Ramakrishna Vedanta Society of Boston, every Friday at 5:15pm in the MIT Chapel.

Japanese is not required. For further informa-tion contact: Bonny Hafner, Foreign Study Advisor, Rm 12-185. Deadline: Feb 19.

- Support for Special Projects in Library and Information Science with Central and Eastern Europe and Eurasia. The International Research and Exchanges Board (IREX) is providing opportunities for support of librarians, archivists and information specialists pursuing projects relating to Central and Eastern Europe and Eurasia. Further information and proposal guidelines are available at the International Scholars Office, Rm 4-105. Deadline for receipt of proposals: Mar 1.
- Support for Special Projects in the Study of Central and Eastern Europe and Eurasia. The International Research and Exchanges Board (IREX) is providing opportunities for support of collaborative Special Projects in study of Central and Eastern Europe, Mongolia, and the successor states of the former Soviet Union. Proposals from all disciplines in the humanities and social sciences are welcome. All projects must involve Americans and foreign participants from the above regions. Further information and proposal guidelines are available at the International Scholars Office, Rm 4-105. Deadline for receipt of proposals: Mar 1.
- Aga Khan Program 1993 Summer Travel Grant. A limited number of summer travel grants will be offered to graduate students at MIT and harvard University. Grants are available for four types of projects or activities: 1) thesis research; 2) individual research projects; 3) Pakistan design studio and construction workshop, and 4) internships in Jordan and Pakistan. Must be currently enrolled graduate students planning to register in fall of 1993. For complete application guidelines contact: The Aga Khan Program for Islamic Architecture, Rm 10-390, x3-1400. Deadline: Mar 1.

■ INTERNATIONAL

- MIT Language Conversation Exchange**-This service assists members of the MIT community to practice a language with a native speaker and get to know someone from another country. Call x3-1614 for more information.
- MIT-Japan Program. A unique opportunity for MIT science, technology and management students to spend a year in Japan working at a major Japanese company or laboratory. Train-ing, placement, travel and living expenses are covered by the Program. Call Patricia Gercik x3-3142, Rm E38-754.

STUDENT JOBS

There are more job listings available at the Student 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.

- Off Campus, Non-Technical, Programming. TeleTypesetting Co. is looking for a HyperCard Programmer. Previous experience required. Knowledge in C desirable. Hours are flexible. Salary is negotiable upon experience. Contact: Ed Friedman, 311 Harvard St., 734-9700.
- Off Campus, Non-Technical. Aerobics instructors needed. Must be AFAA, IDEA, or ACE certified and also have CPR training. Salary and hours are negotiable. Contact: Ali Kantor, Simmons College, 738-2240.
- Off Campus, Non-Technical, IAP. An AUTOCAD drafting assistant is needed immediately, for three weeks. Hours should be after 5pm or on weekends. Candidates must have a working knowledge of AUTOCAD. Work is related to Masterplan for Boston Public School Facilities. 20-40 hours per week for the three weeks. Salary is negotiable. Contact: Lisa Monahan or Jim May, 423-4440
- Campus, Non-Technical. French tutor for private lessons, on campus, hours flexible. Na-tive speaker preferred. Please call x3-7480.

VOLUNTEERS

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

cants, who should have experience in literacy or community organizing, may work on a variety of projects. Contact the MIT Public Service Center for a copy of the application form, which is due by March 10th. Contact: MIT Public Service Center at x3-0742 or SCALE offices in NC at 919-962-1542.

UROP

The UROP Office invites MIT and Wellesley students to join with faculty members to pursue research projects of mutual appeal. For detailed information on procedures, please read the par-ticipation section of the UROP 1992-93 Direc-tory, available in the Academic Affairs Offices, 7-104 and 20B-140.

Spring Guidelines and information are now available. Spring and IAP/Spring proposals for direct UROP funding will be accepted on a rolling basis starting January 15, 1993. Please watch for pertinent information on the UROP bulletin boards in the infinite corridor near 3-103, in the UROP office, 20B-140 and in Tech Talk.

Faculty supervisors wishing to have projects listed may send brief descriptions to 20B-140, call x3-7306, or email to <urop@athena>

- Multimedia-New Products. An opportunity is available to work on Multimedia Applications for New Products. This could serve as the basis for an Undergraduate Thesis. Primary responsibility will be to program a Macintosh-based Multimedia System to simulate New Industrial Products. Macromind Director is the software used. The new product is a Medical Diagnostic Device. Faculty supervisor: Dr. Glen Urban, Rm E56-332, x3-6615. Contact: Rm E56-345: Conan Daily, x3-0293, Jon Bohlmann, x3-0159, or Polly Slade, x3-6615.
- Physical Properties of Biodegradable Starch-Based Fibers. A responsible student is wanted to study the dependence of mechanical prop-erties of starch-based fibers on variables such as moisture content, orientation, and composition. The researcher will assist in the melt spinning and drawing of fibers and in performing tensile tests, Karl Fischer titration, differential scanning calorimetry, and density measurements in order to compare the physical properties of processed starch-systems with typical commodity thermoplastics. A background in Chemical Engineering or Materials Science with special interest in studying polymer science is preferred. The position requires at least 10 hours a week during the Spring semester with the possibility of long term employment during Summer session and beyond. Faculty supervisor: Prof. Edwin L. Thomas, Rm 13-5066, x3- 6901. Contact person: Stephanie Simmons, x3-5158, x8-6135, <simmons@uzi.mit.edu>.
- medical Engineering. A UROP student is Bio invited to participate in an ongoing project to develop a new mechanical respirator for artificial mechanical ventilation of newborn infants with hyaline membrane disease. Primary responsibilities include: 1) Develop a computer program for simulating a lung me-chanics model and estimating model parameters. 2) Using the computer program, ana-lyze data obtained in physiological experiment. Faculty supervisor: Dr. C.S. Poon, Rm 20A-126, x8-5405, <cpoon@hstbme.mit.edu>

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> Photojournalist DONNA COVENEY

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News Office

stool stolen, \$50; Bldg E23: electronic desk organizer stolen from coat left unattended, \$150; Bldg N51: backpack left unattended and stolen, \$23; Bldg 9: stereo equipment stolen, \$1,425; Student Center: pocketbook containing \$20 stolen; Bldg 7: figure skates stolen, \$200; West Garage: car radio stolen; Bldg E23: tape recorder stolen.

Jan 16: Hayden Library: wallet \$7; Rockwell Cage: bag containing clothes stolen.

Jan 17: DuPont: men's locker room, wallet \$65.

Jan 18: Bexley: obscene phone calls; Bldg 2: chemical spill; Bldg 18: wallet, \$35.

Jan 19: Bldg 66: suspicious person, ID as member of the assassin guild; Bldg 6:1) \$70 cash stolen; 2) wallet, \$350; Bldg 26: pocketbook & checkbook stolen; Bldg E19: power tools, \$165; DuPont Gym: basketball stolen, \$25; Bldg 4: fax machine, \$800; Bldg E23: cash, \$110; Bldg E17: Powerbook, \$3,600; East Garage: attempted larceny of truck; CRA Lot: radio stolen from a car; West Garage: Honda broken into; Student Center: wallet, \$20; 500 Memorial: harassing phone calls.

Jan 20: Kresge: music lockers broken into; Westgate: Hyundai broken into, radio stolen; DuPont: coat stolen from basketball court, \$160; Kresge: violin stolen, \$13,100; Walker: wallet stolen, \$150; three males arrested by Metro State Police and assisted by MIT for breaking into a Hyundai on Memorial Dr at Fowler St.

OPPORTUNITIES

Research Residency Opportunities in the Baltics and Eurasia. The International Research and Exchanges Board (IREX) will award research residencies to promising scholars for independent research projects in the Baltics and the Soviet successor states (including the Ural, Siberian, and Far East regions of Russia). Eligibility requirements include US citizenship or permanent residency, a PhD or equivalent professional degree, a research proposal in the humanities or social sciences encompassing particular states/regions, and command of a host-country language sufficient for research. The award is \$25,000. For application materials, write or call Adrienne Poulton, IREX, 1616 H St., NW, Washing-ton, DC 20006. Phone: 202-628-8188. Application deadline: Feb 15.

Kawamura Summer Fellowship Program. Kawamura Electric Industrial Co. Ltd., a midsized manufacturer of electrical equipment in Nagoya, Japan, invites four students in their junior or senior year to spend the month of July in Nagoya and travel to Tokyo and Kyoto. The program is designed to promote cultural exchange. All costs for travel, accomodation and related activities are borne by the sponsor, and a stipend is provided. Ability to speak

Asian American Civic Association. Spring vol unteer opportunities are available with the Asian Youth Tutorial Program. Volunteer tutors/mentors work with Asian youth in local high schools, Th. or Fri., 2:15-4:30pm, through May 14th, as part of an enrichment and English as a second language program. Training is provided; information sessions are scheduled for Feb 18th and 19th. This Boston organization, which also has other volunteer opportunities, is accessible by "T." Contact: Sara Freed at 426-9492.

Parents Forum. This program focuses on parent support and family celebration, with a variety of activities. As a relatively new group, they are looking for a volunteer or intern interested in helping them put together a scrapbook. They also need someone who would like to help them get organized on e-mail and perhaps on an electronic bulletin board network. Volunteers will also participate in family-issues discussions, which are tentatively scheduled bi-monthly on Saturday afternoor this spring. Contact: Eve Sullivan at x3-7182 (w) or 864-3802 (h).

The Student Coalition for Action in Literacy Education (SCALE). SCALE is offering several paid summer internships in their office at the School of Education at the University of North Carolina at Chapel Hill. AppliDirector: Kenneth D. Campbell; Associate Director: Robert C. Di Iorio; Senior Assistant Director: Charles H. Ball; Assistant Directors: Donna Coveney, Joanne Miller; Assis-tant Editor: Elizabeth A. Thomson; Administrative Assistant: Myles Crowley; Senior Staff Assistant: Lisa Damtoft; Receptionist: Chandra Wilds.

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JANUARY 27, 1993

FALL START

Aero/Astro Introduces New SB Program

The Department of Aeronautics and Astronautics will introduce a new undergraduate program in the fall of 1993 to be offered first to the class of 1996.

"This major revision of our bachelor degree program is the first in many years," said Professor Earll M. Murman, head of the Department. "It is an outcome of our strategic planning process which portrayed a vision for aerospace engineering for the next twenty years.

"The end of the Cold War, increasing global economic competition, concern for the environment, and the role of the engineer in an ever more complex society are factors which led us to rethink our program," Professor Murman said.

"The new program is the result of a 2 1/2-year planning and design process which has engaged the entire department faculty. We also sought the advice of many industrial and government leaders as well as our own students," he added.

A single degree program will replace the present "Regular" and "Avionics" options of Course XVI. This new curriculum retains many strengths of the existing one, but differs in significant ways.

An increased emphasis on fundamental mathematics and engineering science, inclusion of aerospace information, decision, and control topics in the core curriculum, greater diversity in the choice of upper-class professional area subjects, greater depth in one professional area, and additional material on experimental methods are some of the key differences from the present curriculum.

Similarities include retention of a revised Unified Engineering (where all the topics taken by sophomores are presented in a unified manner), Experimental Projects, and senior design subjects as well as the "systems" view that is a central theme to aerospace engineering. 3.094 (Materials Technology) and 6.071 (Introduction to Electronics) will be dropped as requirements with the essential material included in the department core subjects. Probability and Statistics (6.041) will be added, with recitations in this and 8.03 (Physics III) offered by aero/astro faculty.

In addition to the subjects listed in the bulletin, topics of the "implicit curriculum" will be consciously addressed throughout the program. These include: written and oral communication skills and teamwork; the social, economic, and political context of aerospace engineering; professional skills such as modeling, estimation, design, and self-education; and professional responsibilities such as ethics.

The Department invites all interested freshmen to attend an informational meeting on Wednesday, Jan. 27, 3:30-4:30pm in Rm 35-225 so that spring subject selections can be made with knowledge of the new program. Any interested member of the MIT community is welcome at the meeting. Informal discussion and refreshments will follow. A detailed writeup of the rationale and design of the new curriculum can be picked up in the Department Undergraduate Office, Rm 33-208 or requested by calling x8-5946.

"A degree in aerospace engineering has long been considered a sound first step to either a career in the aeronautics and/or space industry, further education or other careers such as law or medicine," said Professor Murman. "The challenges of flight require a broad technical education which serves students well whether their eventual interests lie in aerospace or elsewhere."

QUAKE FORCES—An interesting demonstration of the fractional sliding and elastic strain release that occurs in earthquakes holds the attention of several students at a recent IAP event scheduled by the Department of Earth, Atmospheric and Planetary Sciences. At left, Assistant Professor Chris J. Marone operates an electric motor that slowly increases the loading on a spring attached to the smaller, slider rock. At first, friction holds the slider rock in place on the larger rock, but as the spring is slowly stretched, the load on the rock increases, producing a jerky, stick-slip motion. Seated at right is Associate Professor J. Brian Evans. Photo by Donna Coveney

FOUR NEW CHAIRS

Six Appointed to Professorships

The appointments of six faculty members to endowed chairs—four of them newly established-have been announced.

The new chairs and the first holders are:

The Lee and Geraldine Martin Chair, Professor Mario J. Molina, Department of Earth, Atmospheric and Planetary Sciences and Department of Chemistry

The Rudge and Nancy Allen Chair, Professor Stephen A. Benton, head of the Media Arts and Sciences Program.

The Henry L. and Grace Doherty Chair in Ocean Science and Engineering, Professor Chryssostomos Chryssostomidis, Department of Ocean Engineering and director, MIT Sea Grant College Program.

The Rose Chair in Urban Economics, Professor Frank Levy of the Department of Urban Studies and Planning.

Endowed chairs established earlier and their holders are:

The Class of 1960 Fellow, Professor Thomas L. Magnanti of the Sloan School of Management, co-director of MIT's Leaders for Manufacturing Program.

John D. MacArthur Chair, Professor Paul R. Schimmel of the Department of Biology.

Professor Molina, a world leader in developing a scientific understanding

of the chemistry of the stratospheric ozone layer, has been selected to be the first holder of a chair established by the Martin Foundation, Inc.,

direct the Spatial Imaging Group at the MIT Media Laboratory. He holds the

SB(1963) in electrical engineering from MIT, the MSc in engineering (1964) and the

PhD in applied physics (1968),

The Allen Chair is named for Rudge Allen, a member of the MIT Corporation at the time of his death in January 1990. Mr. Allen received a degree from the Department of Chemical Engineering.

Professor Chryssostomidis, who holds a chair made possible by the Henry L. and Grace Doherty Charitable Foundation, Inc., is a naval archi-

tect. His work since he came to MIT in 1970 has focused on the general area of design of marine structures. He has headed his department's Design Laboratory since 1973. His most recent

Chryssostomidis projects include the establishment of a

new MIT laboratory for the development of technology and systems for advanced autonomous underwater vehicles. He is widely known for his work in developing computer-aided design systems for ships. He holds the BSc

co-director of

MIT last fall from the University of

Maryland's School of Public Affairs.

the MA (1965) and the PhD (1969) from

Yale. He was Clair Wilcox Lecturer in

optimization of large-scale systems, is

Economics at Swarthmore (1991).

He holds the SB (1963) from MIT and

Professor Magnanti, an expert on

MIT's Operations Research Center and director of the Institute's Decision Sciences Program. He is noted for his fundamental contributions to optimal design of communication and transportation

Magnanti

networks and for his work in manufacturing education. He joined MIT in 1971 and headed the Sloan School's Management Science Area from 1982 to 1988. Since 1985 he has held the George Eastman Professorship of Management Science. He was elected to the National Academy of Engineering in 1991. Professor Magnanti holds the BS in chemical engineering (1967) from Syracuse University and three degrees from Stanford University, the MS in statistics (1969), the MS in mathematics (1971) and the PhD in operations research (1972).

Professor Schimmel, widely known for his experimental work that revealed



Schimmel

partofa"second genetic code" and for his substantial contributions to under-



Libraries to Review Subscriptions

The MIT Libraries are again seeking faculty advice in identifying journal titles which may need to be cancelled because of continuing high inflation.

There are many reasons for the rapidly increasing prices: rising production costs, increased pages and volumes of some journals, a shift from publishing by scholarly societies to publishing by for-profit publishers, and the fluctuation of the dollar on the European currency market, which affects approximately half of MIT's titles.

Since 1986, the unit cost of journals purchased by the Libraries has increased 71 percent whereas the Libraries have increased expenditures by only 55 percent. Major cancellation projects in both 1988 and 1991 have resulted. The Libraries cancelled approximately

1,000 titles in each of those years. Again this year, the increase in jour-

nal prices may outrun the Libraries' ability to pay. Whether cancellations will be necessary, and the extent of those cancellations, will not be known until the Libaries' FY1994 budget is set and year-end price data is available.

In order to be prepared to implement cancellations this summer if necessary, library subject specialists are now reviewing price, use, and citation data to draw up preliminary lists of titles. During February and March, librarians will contact academic departments to get faculty input on these lists. In a May meeting, the Faculty Committee on the Library System will review the Libraries' budget position before cancellations are implemented.

Benton both from Harvard University.

Entrepreneurs Club Plans Event

The MIT Entrepreneurs Club, aka "The E-Club" will be celebrating its 5th year with a reunion, the traditional appreciation night, a networking party for new and returning alumni and an introduction for interested members of the MIT community to the Club's activities and services

MIT students will also have an opportunity to meet with members of the 4th Annual \$10K '93 Student Competition mentors group.

Activities begin at 4pm on Saturday,

It's a Fact

The American premiere of Gilbert & Sullivan's last operetta, The Grand Duke, was presented by MIT students on May 3, 1901, as the first student musical production.

Jan. 30, in The Muddy Charles Pub, and for families who wish to participate, there will be kids' activities in Morss Hall with music, story-telling and a technology-devices "take-apart" party with tools and help provided. And of course there will be pizza for all.

Costs of the activity range from \$3 for kids and \$10 for members of The MIT Community. MIT alumni in business are asked to contribute \$25, and the fee for non-MIT corporations is \$35. All fees are on a per-person basis. MIT students registered as participants in the current 10K competition get in free.

For additional information, and to RSVP please, call the E-Club at x3-2000 or drop your check off with Cathy Cook in The International Scholars Office, Rm 4-105.

For further details on-line drop a note to Richard Shyduroff at <rdshydur@athena.mit.edu>.



Molina

to support research and education activities related to studies of

the environment.

A member of the faculty since 1989, Professor Molina was the principal author on the 1974 paper that put forward the original fluorocarbon-ozone depletion theory.

His major interests are in atmospheric chemistry, gas phase kinetics and photochemistry, and heterogeneous chemistry. He holds the chemical engineer degree (1965) from the Universidad Nacional Autonoma de Mexico, a postgraduate degree (1967) from the University of Freiburg, West Germany, and the PhD (1972) from the University of California, Berkeley.

Professor Benton's principal research interests are imaging physics, holography, three-dimensional imaging, optics and communication theory. In 1982, he founded and continues to

with honors (1965) from Newcastle Upon Tyne University, England; the SM (1967), the Naval Architect degree (1968) and the PhD (1970), all from MIT.

The chair Professor Levy holds, established with a gift from Daniel

> Rose, president of Rose Associates of New York City, a real estate development and management company, is the first at MIT for urban economics. Mr. Rose, a founding member of MIT's Center for Real

Estate, has a long-standing interest in the healthy functioning of cities.

Levy

Dr. Levy, nationally known for his research in US income trends, focuses on how changes occur in the occupational structure and what the changes mean for the schools preparing students for the job market. He came to standing protein and enzyme chemistry in the cell, has been a member of the MIT faculty since 1967.

Professor Schimmel and a

postdoctoral researcher, Dr. Ya-Ming Hou, published an article in 1988 in Nature concerning the chemical mechanisms by which proteins are synthesized from information stored in a cell's genetic material, DNA. A commentary article in the same issue of Nature, by the 1974 Nobel laureate Christian de Duve, emphasized the significance of Professor Schimmel's work, referring to it as "the second genetic code."

Professor Schimmel, a member of the National Academy of Sciences and of the American Academy of Arts and Sciences, holds the AB from Ohio Wesleyan University (1962), attended Tufts University School of Medicine (1962-63), and received a PhD (1966) from MIT.



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INSTRUCTIONS: Ads are limited to one (of about 30 words) per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Persons who have no extensions or who wish to list only their home telephones, must come in person to Rm 5-111 to present Institute identification. Ads using extensions may be sent via Institute mail. Ads are not accepted over the telephone. Faxes are not accepted.

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

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

Deadline is noon Friday before publication.

FOR SALE

- M's leather coat sz 40 reg, \$75; ergonomic secretarial chair, \$25; pedestal-style work table, standard sz, \$25. Ross, Linc x4792 or 965-2359.
- Stair stepper, fully assembled, used 4 mos, best offer; 1 Korg Poly 61M synthesizer w/MIDI and stand, best offer. Karen x3-9325 or 776-6268.
- 2 rear projector screens, \$300 for both; spkrs: 2 cabinets loaded w/4" tweeters, \$200 for both; new 9x24 oriental rug runner, pd \$70, sell for \$35. Elaine x3-8584 (1-5pm) or 643-4176.
- Lovely kitchen set, dark oak round table w/lazy susan, 6 beaut chairs, can be seen anytime, askg \$250. Call 224-0330 aftr 5pm.
- Complete LR set, exc cond, incl 80" couch, wall hugger recliner, coffee table, 2 endtables, all glass tops, 2 beaut lamps, all Mediterranean. Call 893-3377 lv mssg.
- Mac Classic 4/40, like new, only \$750 (\$1200 new), carrying case & cable lock, \$50; Stylewriter, letter-qual portable printer, \$200 (\$300 if new). Nora x3-0372.
- Smalltalk/V for Windows ver 2.0, \$100 (sells for \$300); Panasonic KX-P1124, 24 pin dot matrix printer, in new cond, \$75 (sells for \$200). Mark x3-1205 or 494-8115.
- L's brown wool coat, below knee length, fur collar, sz 12, like new, orig \$249, sell for \$40. Rosalie 776-3748.
- Michelin radial snow tires, 145R 13X, mounted on Renault Le Car rims, like new, \$50/pr. Call x3-0457 or 924-6294
- 486/33 MHz computer, 120MB HD & 3.5" FD drvs. 8MB/70ns Ram, MS-mouse/sftwr, \$900: Super VGA ATI Graph Card w/Window Accel, more. Jie x3-2256 or 576-0756.
- Rossignol 190 & Dynastar 150, \$55 ea; Rossignol 200, \$20; Dynastar, Elite, 175, \$65; poles, \$10; boots, \$10-\$55; x-c skis, \$25-35, x-c boots, \$25. Call x3-3175 or 332-8251.
- Endirons, brass & black fplc screen, antique, \$75 & \$65; sm mahog side table, \$25; W. Bend hu-midifier, \$15; 4-slice toaster, \$15; bathrm scale,

tor, batteries, charger & your choice of 4 CDs, \$209 or bst (retail \$329). Call 286-3336 lv mssg.

Free: upright piano, nds work & tuning, Cambridgeport. Cynthia x3-4421 or 864-6127 eves.

- Macintosh II, 2MB RAM, PMMU, 90MB HD, Apple 13" color monitor, mouse & kybd, sys 7.0.1, \$1295. Sarah or Chris 621-1334.
- Met opera tickets for Fri., Feb. 5, see Princess Von Werdenberg and Octavian during the Met's performance of Richard Strauss's Der Rosenkavalier. 2 tkts, \$66. Pat, Linc x2402.
- Trundle bed, can be 2 twin beds or put together to make a queen, \$175 or bst; small car cover, \$10; window mount ski rack, holds 4 prs of skis, \$20. Call x3-3096 or 508-785-2524.
- One pair Polk Audio SRS 3.1 TL Tower spkrs, reference series, 500 W pwr handling, black, 5' tall, \$900 or bst. Duane 731-2685.

ANIMALS

3 abandoned cats, 1M (approx. 2 yrs old) & 2F approx 1 1/2 yrs old, nd gd homes. Are neutered, have shots, friendly. Andrea x3-5831.

VEHICLES

- 1984 Subaru STD, 2-dr htchbk, 87K, runs grt but has rust, nds muffler, \$350/bst. Owen Lamont x3-8719 or 621-0085.
- 1984 VW Rabbit, automatic, gd running cond, \$1200 or bst. Call x3-8278
- 1986 Toyota Corolla LE, 50K miles, a/c, p/s, p/w, p/l, AM/FM, mag wheels, exc cond, complete svc records, \$4500. Joel, Linc x2855.
- 1987 Nissan Sentra, 55Km 5-sp, a/c, AM/FM, grt mileage, nw tires/exh/batt/brks, recent cooling sys, svc & tune-up, Chapman sec, looks & runs almost like new, \$2950. Call dorm x5-9803.

HOUSING

- Brookline: 1BR bsmt apt, close to T, avail Feb 1, \$450/mo incl utils. Jim Rebitzer or Kathleen Engel x3-7782 lv mssg.
- Cambridge: lrg 2BR, modern eat-in ktchn, d/w & disp, walk-in closets, sunny, cheerful, on Red Line betw Porter & Davis Sqs, 10 mins to Hvd Sq. Call 625-1714 days or 646-0404 eves.
- Cambridge: charming 1BR, 2 lvls, fully carpeted, d/w, encl yd, on quiet st, close to shoppying, MBTA bus & train, 1 car prkg, no pets, no smkg, avail now, \$800 incl ht. Call 876-3983.
- Dorchester: condo for sale, Adams Village, 2BR, completely renovated, prkg incl, grt nbrhd, walk to T & shops, askg \$67K or rent w/ option. Patty x3-7934.
- Malden: 5-rm apt, lg spac K, LR, porch, deck, remod bath, laundry, refrig, quiet, pking, nr T, avail now. Call 324-7687 lv msg.
- Somerville/Camb line: 2BR apt, off-st prkg, conv to transp, Harvard, \$750/mo. Lincoln Lab x7018.
- Watertown/Camb line: bus to Hvd Sq, nr everything, attractively furn rm at a newly remodeled Int'l House for visiting scholars/grad students, shr apt w/other int'l visitors. Call 527-3431.

WANTED

- Wanted: Epilady, cat carrier, and crumb catcher. Ginny x3-9317 or 508-263-8332.
- Research study of growth & development in 9-11 yr old non-overweight girls sks participants, cl 1 overnight, Clinical Res Ctr, will be paid \$50, parental consent req.. Call x3-3097.
- Women smokers wanted for 16-wk research program. educ'l & support meetings over 4 mos give you a better chance to quit, sponsored by the Clinical Res Ctr, new groups forming. Call x3-3437.



NEW LANDMARK-Work on the biology building on Ames Street is progressing apace. Photo by Donna Coveney

COBRA Covers Graduating Children

f your child is graduating from college this winter, his or her coverage under your MIT health and/or dental insurance plan may end at the end of the month of graduation. Your child is eligible to continue coverage upon notification of the Benefits Office or the Lincoln Benefits Ofice within 60 days of the graduation date.

All of MIT's group health insurance plans and the dental plan provide coverage for dependent children until the age of 19. Coverage for a dependent child beyond age 19 is available if the child is a full-time student as follows: until age 23 for Blue Cross/ Blue Shield and the Delta Dental Plan, age 25 for the MIT Health Plans, Harvard Community Health Plan, and Tufts Associated Health Plan, and age 26 for Bay State Health Care and Central Massachusetts Health Care.

The federal Consolidated Omnibus Budget Reconciliation Act (CO-BRA) provides for an extension of coverage beyond your child's graduation from school. The COBRA legislation provides "continuation coverage" at full group rates, unsubsidized by MIT, in certain instances where coverage under a group health or dental insurance plan would otherwise end.

When your child graduates or reaches the plan's maximum age limit for dependent coverage, he or she has the option of continuing present medical coverage under the COBRA continuation option or of enrolling in the plan's own non-group program. You should contact your plan directly for information on non-group coverage.

Under COBRA, coverage is available for your child for up to 36 months. Under the law, you or your child are responsible for informing MIT within 60 days of your child's graduation or the date he or she reaches the maximum age that you are interested in COBRA coverage. Coverage is not

available if you delay notification beyond the 60-day period. You are reminded that you must contact the Benefits Office directly-not your health plan.

Anyone interested in this "continuation coverage" for dependents should contact the Benefits Office,

Rm E19-411, or the Lincoln Benefits Office, Rm A-125, x7060, for enrollment information. When calling the campus Benefits Office, please call the extension that corresponds to the first letter of your last name: A-E, x3-4270; F-K, x3-4260; L-Q, x3-4271, and R-Z, x3-4272.

Tax Forms Designed to Fit

Continuing tax changes make it possible for many taxpayers to file simpler returns

Although you may receive in the mail the same type of tax form you filed last year, you should review your tax situation to see if filing a different form is necessary or would be more beneficial.

Choosing the simplest tax form that fits your situation:

• may save you time if you can use one of the shorter forms.

· reduces the possibility of making errors.

KELVIN D. BOLGER

Word has been received of the December 27 death of Kelvin D. Bolger, 64, of Somerville, following a long illness. Mr. Bolger was a custodian in Physical Plant from 1973 until 1988. He is survived by his wife, Antoinette Bolger.

PETER BÜTTNER

Peter Büttner, 53, an alumnus and former associate dean for student affairs, died January 16, following a long illness. A member of the Class of 1961, Mr. Büttner returned to MIT in 1965 to help automate the Student Financial

• can put your tax dollars to better use; filing simpler tax forms helps the IRS reduce the cost of processing and storing the returns, and

• could get you a faster refund if you can file Form 1040EZ.

See your tax package to help you choose the best form. If you have not received a tax package in the mail, you may order forms and instructions by calling 1-800-829-3676.

For recorded information, call the IRS Tele-Tax service at 1-800-829-4477 and select topic No. 152, "Which Form-1040, 1040A or 1040EZ?

sachusetts Respiratory Hospital, 2001 Washington Street, Braintree, 02184.

PAUL R. LOWTHERS

Paul R. Lowthers, 60, of Lynn, Campus Police patrol officer since 1974, died January 13 following a heart attack. Before coming to MIT, Officer Lowthers had been a member of the North Dakota State Police for 18 years.

Members of the MIT Campus Police posted an honor guard at the wake and served as pallbearers. An MIT cruiser led the funeral procession.

Officer Lowthers is survived by two

\$10; misc chairs & lamps. Call x3-6081.

Engagement ring, 14k gold diamond ring. Need a Valentine's Day gift for a special person? Diamond is 46/100 carat, G color VS#1 clarity, \$800, negot poss. Call x3-2656.

Simmons full sz mattress, v firm, \$75. Ginny x3-9317 or 508-263-8332.

MacII parts, ext keybd, \$99; mouse, \$59; RGB video card, \$290; 13" color high resol monitor, \$390; Mac II 5/40, \$950; whole set, \$1590. Everything new except monitor. Charles x3-5040.

Tennis racquet, Prince, response 110 w/case, vir-tually brand new, \$85. Call x3-4978.

Hi-fi stereo, spkrs 150Wx2, \$200; recvr 70Wx3, \$70; tapedeck, \$95; CD player w/remote, \$80; turntable, \$60; cabinet, \$25; headphone \$20; mike \$5. David x3-8939 or 494-1524.

Ski boots, M's perf boots, Lange TSI (htd), sz 10, askg \$100; Nordica 940 sz 8, askg \$80. John x3-2617.

Brand new Sony CD compact player Model D-202, still in package, complete w/earphones, a/c adap

Seminary student sks summer housing, will housesit or do household chores in exchange for housing. Anne x3-3090.

Experienced upholsterer needed to make slipcovers for 6' sofa, salary negotiable. Call 876-0302 aftr 11:30am.

ROOMMATES

Arlington: M or F to shr 4BR apt, lrg LR, DR & ktchn, off-st prkg, close to Rte 2 & on Mass. Ave. bus line, non-smkr, avail 3/1, \$300+ Call 641-3728.

Arlington Hts: apt avail 3/1, M or F to shr 3BR, lrg nny doors, hdwd flrs, w/d, off-st prkg, close to Rte 2 and on bus line, \$325+. Alan 641-1136 or Amy 646-9010.

Somerville: 1 M/F wanted for indep hsehold w/ 2M/1F, nr Union Sq, buses, laundry, prkg avail, \$237.50/mo+. Call 629-2886 lv mssg.

1 person wanted to shr 2BR hse w/young couple, v close to MIT, prkg, laundry, pets, own room, avail 2/1, short-term or long-term, no lease, no dep req, \$325/mo+. Call x3-0145.

LOST AND FOUND

Found: digital watch in Bldg 6 on Jan. 7. Craig x3-8434.

CHILD CARE

Looking for full-time person (pref in-home) to care for 6-mo-old baby, exper. & ref. preferred, basic English req. Alona x3-1402 or 577-0550.

MISCELLANEOUS

Moving: residential, commercial, low affordable rates, lrg or sm jobs, pianos, etc., 20 yrs exp, well-padded trucks, cellars cleaned, insured, free estimate. Ed 617-666-9576.

Small jobs wanted, interior painting, reasonable rates. Jack 326-0587.

Aid Office. He was affiliated with the Dean's Office from 1973-77.

Mr. Büttner leaves his wife, Joan, of Guilford, VT, two step-children, Nate and Hannah Carr, of Guilford; a son, Karl Büttner of Boston, a daughter, Lisa Büttner, of Washington, DC, and his parents, Louis and Barbara Büttner of Peterborough, NH.

NOELLE GOVE

Noelle Gove, 70, of Scituate, retired supervisor of records in the Registrar's Office, died on December 10. Mrs. Gove worked at MIT from 1968 until her retirement in 1987.

She is survived by five daughters, Pamela Darlington of Hampton Falls, NH, M. Berney Skutel of Fairfax, VT, Deborah Gove of Brookfield, VT, Wendy G. Lund of Riverton, CT, and Penelope G. Conlon of Bridgewater; a son William Bradford Gove III of Roslindale and 14 grandchildren. Remembrances may be sent to the Mas-

daughters, Susan Leary of Kent, WA, and Mary Jo Border of Bismarck, ND; two sons, Gregory of Denver, CO, and Michael of Prior Lake, MN; three grandchildren and a close friend, Jane Walsh, of Lynn. Remembrances may be sent to the Jimmy Fund, 44 Binney Street, Boston 02115.

JOHN T. OLDROYD

John T. Oldroyd, 52, of Nashua, NH, a project machinist at Haystack Observatory, died January 19. Mr. Oldroyd had worked at Haystack since 1982. He leaves his wife, Jonatha Oldroyd.

LOUISE PRICE

Word has been received of the December 18 death of Louise Price, 100, of Boothbay Harbor, ME. Mrs. Price worked at Lincoln Laboratory from 1944 until her retirement in 1967. Her survivors include a grandson, Brian Salter, of Boothbay Harbor.

Project to Generate Mooring Data

By Carolyn Levi MIT Sea Grant College Program

(This article originally appeared in the Fall 1992 issue of Current Affairs, a biannual report from the MIT Sea Grant College Program.)

Some small boats sit out hurricanes in safety. Others tear from their moorings, careen into other boats and smash themselves onto the shore. Boat owners would like to know how to put their boats in the former category and avoid the latter.

After seeing his boat stay tight, experiencing only minor damage while more than 100 boats moored in Marion Harbor went ashore under the power of Hurricane Gloria, Norman Doelling, MIT Sea Grant assistant director, wanted to know why he was spared while others suffered. Why do some moorings hold and some break?, he asked.

The quest was sharpened when Dr. Doelling encountered a fellow Marion Harbor boater, Professor Emeritus Stanley Backer of mechanical engineering, prowling the harbor. Professor Backer, an international expert on ropes, was also looking for answers.

"We found out that as soon as we asked a quantitative question, like what are the forces on mooring, we found a complete absence of data," Dr. Doelling said. "There are all kinds of recommendations on how big mooring lines should be, and there are all kinds of recommendations on how big anchors should be, but the only existing measured data seems to be for Navy anchors, tested with big chains, holding down Navy cruisers, destroyers or battleships."

For smaller boats, the recommendations are based on "folklore or accumulated wisdom."

The only way to know how big moorings need to be for a boat to be secure is to understand something about the forces generated by a moving boat, he says. And once the forces are understood, it is necessary to find a way to test different mooring systems.

The way to test the forces, Dr. Doelling decided, was to outfit his boat with a host of recording instruments and then wait for the weather to take the boat through a course of ups and downs, backs and forths, and general movements at anchor.

Professor Jerome H. Milgram of ocean engineering and a yacht designer, offered to help with acquisition and analysis of the data. Additional help was provided by D. Noah Eckhouse, a research specialist in ocean engineering who also worked on the America's Cup.

The project was supported by the MIT Sea Grant College Program advisory funds and by the CIGNA Insurance Co.

The instruments included a strain gauge on a wire to the mooring line, as well as those needed to measure and record wind speed, boat heading, water depth and boat movement about the mooring. "The idea is to measure continuously over two- to five-minute periods and keep track of environmental variables—wind speed, direction and the position of the boat with respect to the wind as well as to water," Dr. Doelling said. "Then, we'll be able to say something about the kinds of things we can expect moorings, ropes and chains to withstand."

Initial tests of the force-measuring and recording system showed that the rope behaves like a non-linear spring. Importantly, the peak force on the mooring rope can be two or three times the average force. It is the peak force that will break the rope in a storm. In addition, the boat moves around with respect to the wind, so the forces the boat applies to the rope will be very aperiodic.

"The dynamics of the boat's movement, not just the strength of its pull on the rope, will be really important in understanding the forces involved," Dr. Doelling said.

The next step will be to obtain data in the spring, store it in the on-board computer and analyze it. If, through calculation and analysis, the researchers can derive the forces on the rope and mooring for many kinds of boats, they will be able to make data-based recommendations to the marine community.

Next hurricane season, perhaps, far fewer boat owners may arrive at marinas to find their boats unhappily ashore.



INSTALLATION—An interactive video art sculpture is being plugged in and tuned up by, left, Caroline Kwak, a junior in architecture, and Margaret Orth, a graduate student at the Center for Advanced Visual Studies. The opening of the piece was Friday night, and it runs all this week at CAVS.

Photo by Donna Coveney



TUFTS TOPPERS

Two MIT teams broke long-standing droughts in competition against Tufts University last week. The squash team defeated Tufts by a 7-2 score for the Engineers' first victory over Tufts in 15 years. The men's swim team stopped an even longer string. With the Engineer's win, a 20-year win streak by Tufts was snapped.

GYMNASTICS

Gymnast Julie Lyren of Akron, OH, has been named the Eastern College Athletic Conference (ECAC) Division III Gymnast of the Week. A senior captain, Lyren broke two Institute records in Saturday's meet against Yale University. Lyren scored a 9.2 on the beam and totaled a 36.1 in the all-around to break the records formerly held by 1992 graduate Lisa Arel. Lyren also earned an 8.85 average in the vault competition, tallied an 8.7 on the bars and finished with a 9.35 on floor exercise.

Women's gymnastics coach Catherine Rocchio, a 1990 graduate of the Institute, has been named the ECAC Division III Women's Gymnastics chairperson.

BASKETBALL

In basketball, both junior Mari Casserberg and freshman Keith Whalen were named to the ECAC New England Division III Honor Roll for the week ending January 10. Casserberg, a forward from Knife River, MN, scored 17 points, hauled in 13 rebounds, added four assists, and had five steals in the Engineers' 82-51 victory over Wentworth Institute of Technology. Whalen received his second ECAC honor of the season by scoring 20 points and grabbing eight rebounds in MIT's 82-57 loss to the

EVERYONE INVITED MITAC Marks 10th Anniversary

A special neon-pink flyer arrived in everyone's mail last week announcing a month-long celebration of the 10th anniversary of the MIT Activities Committee (MITAC).

The celebration will begin next Tuesday (Feb. 2) in Lobby 13 with balloons and refresments from noon-2pm. A kick-off will be held at Lincoln Laboratory at noon Wednesday, Feb. 3, in the A Cafeteria. Stephen Fairfield, manager of the Office of Special Community Services will preside, assisted by members of the MITAC anniversary committee who will announce the details of the celebration. Coupons and free neon-pink anniversary magnets will be distributed while they last.

The main feature of the celebration will be weekly drawings each Friday for dozens of prizes donated by MITAC vendors. Prizes include many gift and meal certificates, tickets to all kinds of entertainment, trips and hotel accommodations. In addition there are three grand prizes: The MIT Alumni/ae Travel Program has given an Intercoastal Waterway cruise for two and Omni Travel/Northwest Airlines and Thomas Cook/American Airlines are offering trips for two to any destination within the 48 contiguous states. Details and limitations are included in the flyer.

MITAC was established to plan and promote discount-cost recreational and cultural activities for the MIT community. It advertizes its events in bright pink flyers distributed to everyone. Selected listings are also included in the Institute calendar. Word has gotten out. Over the past 10 years, there have been more than 36,000 individual sales, including some 200,000 movie discount coupons.



Coast Guard Academy. A Londonderry, NH, native, Whalen is a center for the Engineers.

Women's basketball player Portia Lewis, a senior from Ettrick, VA, has been named to the Eastern College Athletic Conference New England Division III Weekly Honor Roll for the week ending January 17. The Engineers had a 1-1 record for the week with Lewis leading the way with 42 points on 17-for-23 shooting from the field. Lewis also totaled 22 rebounds. She leads the New England Women's 8 conference in scoring. The Engineers defeated Nichols College on January 23 for the first time in eight years. MIT outscored Nichols 19-4 over the last ten minutes of the contest to win 62-57.

TRACK

MIT had three winners at January's Beaver Relays. Sophomore Ethan Crain of Windham, ME, won the 3000 Meters with a time of 8:44.23. Brad Geilfuss, a junior from Bedford, MA, copped the 400 meters in 52 seconds flat. The distance medley relay team also placed first with a time of 10:56.23 over the 3600 meter distance.

WRESTLING

The MIT wrestling team recently took second place in the Constitution Athletic Conference Tournament. The Engineers were second to Worcester Polytechnic Institute. **Roger Crosley**

MOVING CELEBRATION—Suze Campbell, Laurie Quinn, who turned some old furniture funky and beautiful with imaginative painting, and Dottie Mark survey the fruits of their efforts at the grand reopening of the Furniture Exchange in its new quarters at 350 Brookline Street. The FX is now open Tuesday-Thursday, 10am-4pm. **Photo by Donna Coveney**



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

Jan. 27 - Feb. 7, 1993

SPECIAL INTEREST

Republic Day Talk*—Jan 29: By Dr. S.S. Ray, Indian Ambassador to the U.S. Sponsored by Sangam, AIA (GSG, UA). 3pm, Rm 6-120 (Lobby at 3pm, talk in 6-120 at 3:30pm). More info: X3-3225.

Focus on the Arts**—Feb 4: Women's League program features presentations by four MIT women artists: Charlotte Gibbs, painter; Nancy Schon, sculptor; Carolyn Latanision, painter; Nancy Doyle, painter and printmaker. Bring bag lunch; beverages and dessert provided. 11am-1pm, President's House. Please call to register at x3-3656.

SEMINARS & LECTURES

MONDAY, FEBRUARY 1

Domestic Violence, It's a Crime! How Can We Stop 11?*—Diane Balser, Massachusetts Women's State-Wide Legislative Network. Sponsored by the MIT Women's Forum, 12pm, Killian Hall, Rm 14W-111. More info: Eleanor Bonsaint x3-5763 or Bette Davis x3-4443.

Quantum Spins and Strongly Coupled Lattice QED**—Dr. Pasquale Sodano, Università di Perugia. Laboratory for Nuclear Science Research Seminar, 2pm, CTP Seminar Rm, Bldg 6, 3rd floor.

Lattice Boltzmann Methods for the Navier-Stokes Equilitions**—Peter Skordos, Research Assistant in Electrical Engineering. Fluid Me chanics Seminar Series, 4-5pm, Rm 5-234.

Eigenvalues of Random Matrices**—Dr. Alan Edelman, Univ. of California at Berkeley. Applied Mathematics Colloquium, 4:15pm, Rm 2-105. Refreshments, 3:45pm, Rm 2-349.

TUESDAY, FEBRUARY 2

- Why Johnny Can't Forecast: Bias and Theoretical Error in Long-Term Oil Market Forecasting*—Michael Lynch, CIS. Political Economy of Global Energy and Environment Brown Bag Luncheon Seminar, 12pm, Bldg E38, 7th floor. More info: M. Lynch x3-5806.
- Visualizing Point Data: A Localized Construction of the Alpha-shape**—Prof. Erik Brisson, Wellesley College. Design and CADLAB Seminar, 4-5pm, Rm 1-214.
- The Politics of Multilateral Environmental Investment**—Prof. Lawrence Susskind. Working Group on International and Comparative Politics of the Environment, CIS, 4pm, Rm E38-714.
- The Houses of W.W. Wurster*—Prof. Tom Hille, Univ. of Michigan/Ann Arbor. Dept of Architecture Lecture, in conjunction with Inside the Large-Small House: The Residential Design Legacy of William W. Wurster '17 exhibition at MIT Museum Jan 23-March 28. 6:30pm, Rm 10-250. More info: x3-4411

Geophysical Applications of Electrokinetic Conversion**-Dr. Arthur Thompson, Exxon Production Research Co. Sponsored by the Dept. of Earth, Atmospheric and Planetary Sciences, 4pm, Rm 54-915. Refreshments, 3:30pm, Ida Green Lounge.

COMMUNITY INTEREST

- Alcoholics Anonymous (AA)**—Meetings every 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.

- Cancer Support Group**—Meetings every Thursday, 12-2pm, Bldg E51. For those with acute and chronic forms of cancer. Sponsored by the MIT Medical Dept. For information about weekly luncheon meeting, call Dawn Metcalf, Social Work Service, x3-4911.
- Co-Dependents Anonymous (CoDA)*—Meetings every Thurs, 6:30-8pm, Rm 66-156. Info: Alice, x3-4911.
- Drop-In Playgroup**—Ongoing, daily, Mon-Fri, 9:30-11:30am, Westgate Function Room. Sponsored by the MIT Child Care Office.
- Faculty Lunchroom**—Good news! The Faculty Lunchroom has reopened in Rm 9-350. Hours 11:30am-1:30pm. New price: \$3.
- Figure Skating and Ice Dance**—Low-cost group lessons for students and other adult members of the MIT community. Bring figure skates and warm clothing to the rink at 9am Saturdays (freestyle); for ice dance refer to the rink schedule board for time of Sat. dance session. Info: Sally 437-3317, 8-10:30am, 12:30-4pm.
- MIT Gay, Bisexual, and Lesbian Employees (GABLES)**—Come to discuss and work on issues ranging from harassment to domestic partner policies. Join us for social lunches and events. For meeting info, call Stephen, x3-6736. To sign up for the staff lesbigay email lists, send e-mail to <gablesrequest@athena.mit.edu>.
- Hosts to International Students Program*— Widen your horizons, enjoy the mutual opening of new cultural doors by becoming a host or host family to an on-campus MIT international undergraduate, graduate or couple. Currently students from Asia and Europe await a host connection. Sponsored through the Office of the Dean for Student Affairs and the International Student Office. Call Kate Baty x3-4862.
- Informal Embroidery Group**-MIT Women's League, 10:30am-1:30pm. Upcoming dates are: Feb 3, 17, Mar 3, 17, Apr 7, 21, May 5, 19, June 2, 16. Meets in the Emma Rogers Room 10-340. Info: x3-3656.
- Narcotics Anonymous*—Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.
- New Overeaters Anonymous (OA)*—Meets Friday, 12-1pm, Rm E23-364. Only requirement for membership is the desire to stop eating compulsively. Info: Alice, x3-4911.592 or x3-1316.
- Parents Anonymous**—Ongoing meetings weekly on Wednesdays, 12-1pm. For those who would like ongoing support in dealing with the challenges of parenting. Led by Joanne Dougan, M.Ed., private practice, Boston. Sponsored by the Child Care Office. Contact Parents Anonymous at 1-800-882-1250 or Rae Simpson, Administrator, MIT Parenting Programs, Rm 4-144, x3-1592.

Wives' Group**—Feb 3: An informal get-together to talk about experiences here and to welcome those new to MIT or haven't yet attended a Wednesday meeting. Come help to talk tonewcomers. Meetings are from 3-4:45pm, Rm491 Student Ctr. (Note: no babysitting available for this meeting). All women in MIT community welcome. Info: x3-1614.

- Working Mothers Support Group**—Ongoing participant-led meetings monthly on the first Thursday of each month, 12:15-1:30pm, Rm 18-592. For all working mothers in the MIT community. No preregistration required. Cosponsored by the Child Care Office and the MIT Medical Dept. Contact Debbie Levey, volunteer coordinator for the group, x3-7112.
- Working Parents Support Group**—Ongoing meetings weekly on Tuesdays, 12:30-1:30pm. For all working parents in the MIT community. Discussion of issues in parenting and the demands of balancing work and family. Led by Jackie Buck, Social Worker, MIT Medical Department. Cosponsored by the Child Care Office and the MIT Medical Dept. Preregistration required, call x3-4911.
- Yoga*—Ongoing yoga classes. Beginner's Hatha, 5:15-6:30pm. Intermediate Iyengar Style, 6:30-8pm. Rm 10-340. Sponsored by the Women's League. For more information contact Ei Turchinetz 862-2613.

HEALTH EDUCATION

- A Breath of Fresh Air⁺⁺—Monthly noon-hour reunion and relapse prevention sessions for graduates of the From Smoker to Non-Smoker workshop. No fee. No registration. Call x3-1316 for dates, rooms, times. Sponsored by the MIT Health Education Service.
- Divorce Support Group for Students^{**}—A support group for students whose parents have recently separated or divorced. Led by experienced group therapists. For information about joining this group please call Marcia Yousik, C.S., or Elizabeth Engelberg, Psy.D., at x3-2916. Sponsored by the Psychiatry service of the Medical Dept.
- Nursing Mothers' Support Group**-First Tues of each month, 10-11:30am and third Wed of each month, 4-5:30pm, Rm E23-297. No fee. No registration. Call x3-2466 for details. Sponsored by the MIT Health Education Service.
- Childbirth Preparation**—Early Pregnancy, Lamaze Childbirth Preparation, and Lamaze Review classes are offered to patients of the MIT Medical Department's Obstetrics Service. Call x3-1316 for details.
- Tape Time for Health**—A free video loan program. Topics include birth, parenting, baby care, smoking cessation, etc. Visit the Health Resources Center to borrow a tape or call x3-1316 for a list of titles available.

MITAC

Ticket locations and hours: Tickets may be purchased at the MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm Monday-Friday (except the third Monday of each month when MITAC is closed for inventory). Lincoln Lab sales in Rm A-218, 1-4pm Thursday and Friday. 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 (\$4.50/ each), Showcase and Loews Cinemas (\$4.25/each, not valid the first 2 weeks a movie is released). Tickets are good 7 days a week, any performance.

MITAC's 10th Year Anniversary Celebration**-Feb 2: Open House on MIT Campus, 12-2pm, Lobby 13. Feb 3: Open House at Lincoln Lab, 12-1:30pm, "A" Cafeteria. Special drawings, information, food, special discount coupons, free city books and magnets (while they last). Drawings will continue in February for over 130 donated prizes, plus 3 grand prizes.

XPress Bookstore Xtended

Good news. Because of its success so far, XPress, The MIT Press Book Sale Annex, will remain open until the last week of February. It is being restocked with more MIT Press and Harvard University Press books this week. The Annex features great bargains—"hurt" and overstock books at prices starting around 50 percent off list prices.

The store will continue to be open

Pennsylvania Dutch Getaway**—Apr 16-19: Trip includes: round-trip bus fare, 3 nights' lodging at the Historic Strasburg Inn (plus 3 breakfasts/1 dinner); a 2 hour tour of the Pennsylvania farmlands; tour of the Amish Farm and House; evening at the Dutch Apple Dinner Theatre; shopping at the Kitchen Kettle Village; dinner at Good 'N Plenty; and tour of the Gettysburg Battlefields and the Electric Map. \$210/pp/dbl. occupancy includes all of the above. Bus leaves from Linc. Lab, Lexington at 7am; Hayward Loi 7:30am on Fri., April 16th; returns approx. 8pm to Linc. Lab, Lexington; 7:30pm Hayward Lot on Mon., April 19th. Purchase by March 9th.

New Discounts for the Computer Museum— 300 Congress St., Boston. Present your MIT ID and receive \$1 off admission. Valid through Sept. 1, 1993.

New England Aquarium Discounts—Purchase individual adult tickets (no discount on children's tickets) for \$5/ea (reg. \$7.50/ea). Valid through May 1993.

Other Discounts—Mrs. Fields Cookies, Disney World, Improv Boston, Catch a Rising Star, Boston Brownie, Greater Boston Books (\$25/ea), Entertainment Books (\$25/ea).

SOCIAL ACTIVITIES

- Chinese Lunch Table. Meets every Tuesday and Wednesday, 12-1pm, Student Center, Private Dining Room, 3rd floor. Bring your lunch and come practice your Chinese speaking. All levels welcome. Sponsored by the Chinese Students Club.
- Japanese Lunch Table. Meets Tuesdays at 1pm in Rm 407 and 491 in the Student Center. Bring a lunch and talk with native Japanese speakers. All Japanese speakers, especially beginners, are welcome. Call x3-2839.
- La Table Francophone. Meets Tuesdays at 1pm in Walker Memorial Dining Room.

MOVIES

- Satyajit Ray Film Series*—Jan 30: Mahanajas, with English subtitles, 3pm, Rm 10-250. Feb 6: Aparajito, in English, 3pm, Rm 10-250. Sponsored by Sangam (GSC, UA). More info: x3-3225.
- 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.
- Jan 28: Under Siege, 7 & 10pm, Rm 26-100. Jan 29: School Ties, 7 & 10pm, Rm 26-100. Jan 30: Sneakers, 7 & 10pm, Rm 26-100.

EXHIBITIONS

Strange Attraction: Non-Logical Phase-Lock Over Space-Like Intervals*—Through Jan 29: An electro-mechanical video sculpture for two participants by Sharon Daniel, lecturer, Dept. of Architecture. Hours 12-5pm. Location: Center for Advanced Visual Studies (W11). Funded by the Council for the Arts at MIT. More info: x3-4415.

orporal Politics*-At the List Visual Arts Cen-

the same hours Monday through Saturday 10am-6pm. (It will be closed during Institute holidays such as Presidents' Day, Monday, Feb. 15.)

The XPress Sale Annex is located around the corner from the MIT Press Bookstore, across from Au Bon Pain's side exit in Kendall Square, 55 Hayward Street, Building E39. The phone number is x3-4707.

A Thousand Years of Voyages of Discovery— Exploring the Ocean from Surface to Seabed*—Examines historic explorations of the sea's surface and current efforts to understand the ocean's depth as well. Through summer 1993. Boston Fisheries 1900-1920*—Photographs doculmenting Boston's T Wharf area. Ongoing. Hart Nautical Gallery, Bldg 5, open 9-8 wdkys. Call x3-5942.

MUSIC

Concerts 24-hr Hotline: x3-9800.

- MIT Women's Chorale. Meets Thurs, 7:45pm, Rm 10-340. All women of the MIT community including wives, are welcome. Info: Catherine Kirkpatrick, 625-2941.
- Live Jazz at the Muddy Charles Pub**—Jan 27: No cover charge; ID required. 8:30-10:30pm. Moto Nakamura, x3-5050.
- Brass Quartet*—Jan 27: Student ensemble coached by Lawrence Isaacson, 12pm, Killian Hall. More info: 252-2826.
- MIT Symphony*—Jan 30: David Commanday, guest conductor. Brahms' Symphony #4, Haydn's Symphony #82, Stravinsky's Symphonies of Wind Instruments; Dukas' Fanfare from La Peri. \$1 at the door. 8:30pm, Kresge Auditorium, x3-2826. (Rescheduled from Dec 12. Call to confirm.)
- MIT Chapel Concert: Mannheim Quartet*— Feb 4: Douglas Worthen, flute; Sandra Kott, violin; Anne Black, viola; Joan Esch, cello. Works of Mozart, Pleyel and Reger. 12noon, MIT Chapel. More info: x3-2906.
- MIT Affiliated Artist Concert—Feb 4: Jean Rife and John Boden, horn. Works for natural horn, for horn and piano and horn duets by Foster, Mozart, Baumann, Schumann, Pearlman and Schuller. Jean Rife is an affiliated artist and chamber music coach at MIT and is on the faculties of the New England Conservatory and the University of New Hampshire. John Boden is principal horn of the Portland, ME, and Vermont Symphony Orchestras and is Associate Professor of Music at the University of Southern Maine. 8pm, Killian Hall. More info: x3-2906.

THEATER

Theater Arts 24-hr Hotline: x3-4720.

- Jesus Christ Superstar*—Jan 29-31, Feb 4-6: Presented by MIT Musical Theatre Guild, 8pm, Student Center Sala de Puerto Rico, \$8, \$7 students/seniors/MIT community, \$5 MIT/ Wellesley students. Call x3-6294.
- Angel Street*—Feb 4-6: Presented by MIT Gilbert & Sullivan Players, 8pm, Student Center Rm 491. Call 527-1421.
- Six Characters in Search of an Author*—Feb 4-6, Feb 11-13: MIT Dramashop production directed by Alan Brody, 8pm, Kresge Little Theater, tkts \$7, \$5 MIT/Wellesley students/ senior citizens. Info/reservations: x3-2908.

LOOKING AHEAD

WEDNESDAY, FEBRUARY 3

- Molecular Biological Approaches to Long-Term Memory**-Dr. Eric R. Kandel, Center for Neurobiology and Behavior, Columbia University. Center for Biological and Computational Learning Seminar Series, 12-1pm, Rm E25-111.
- E Pluribus White: Ethnicity and Race in U.S. Nationalist Discourses*—Prof. Brackette Williams, Dept. of Anthropology and teh African American Center, Univ. of Arizona. Discussant: Prof. Helán Page, Dept. of Anthropology, UMass/Amherst. Peoples and States: Ethnic Identity and Conflict Seminar cosponsored by MIT Anthropology/Archaeology Program, CIS. 4:30-6:15pm, Rm E38-714. More info: x3-3065.

FRIDAY, FEBRUARY 5

Negative Regulation of Helix-Loop-Helix Proteins from Mammals to Yeast**-Robert Benezra, Memorial Sloan Kettering Cancer Center. Cell and Molecular Biology Seminar, 12pm, Whitehead Auditorium. Playgroups**—The MIT Wives Group, now with the cosponsorship of the MIT Child Care Office, sponsors and provides ongoing support for informal mother-child playgroups, currently in Arlington/Somerville, Belmont/Watertown, Lexington, Somerville, and Cambridge/Boston. Prospective members contact Wives Group, Rm E23-376, x3-2916. Resources and consultation: Kathy Simons, Rm 4-144, x3-1592.

Technology Children's Center**—The only childcare center on the MIT campus has spaces available in all of its programs at Eastgate (half-day and full-day) for children ages 2 yr 9 mo to 5 yr 6 mo. Information: Olga Slocum, Director, x3-5907.

MIT TeX User Group**—Meets every third Thursday of the month. The group helps people use TeX and all variants. Call Robert Becker x3-1797 for meeting places or e-mail <robertb@math.mit.edu>.

MIT Toastmasters**—Upcoming meeting: Feb 5. An organization that helps people improve and practice their public speaking skills. 12:14-1:30pm, Rm E19-220. Sponsored by MIT Personnel Office. North American Home Show**—Feb 6-14: At the Bayside Expo Center. Tickets are \$2.50/ea (reg. \$5/ea, adult discount ticket only). Open Mon.-Fri., 1-10pm; Saturdays, 12-10pm; Sundays 11am-7pm.

The Liar**—Feb 17: At the Lyric Stage, 8pm. Tickets are \$13/ea (reg. \$15/ea), and must be purchased by Feb 3rd.

New England Boat Show**—Feb 20-28: At the Bayside Expo Center. Tickets are \$2.50/ea (reg. \$5/ea, adult discount ticket only). Open Mon-Fri, 1-10pm; Saturdays 12-10pm; Sundays, 11am-7pm.

Aladdin and His Magic Lamp**—Feb 20: Performance by the Boston Children's Theatre, 2pm, at New England Hall (Clarendon St). Tickets are \$5.50/ea (reg \$6.50/ea, every person, regardless of age, must have a ticket for admission).

Sleigh Ride at the Salem Cross Inn**-Feb 28: In West Brookfield, MA. Includes a scrumptious New England dinner. \$50.00/pp includes roundtrip bus, bus tip, complete Sunday dinner, and sleighride. Bus leaves MIT Hayward Lot at 11:30am; Linc. Lab, Lexington at 12 noon; returns approx. 6:15pm Linc. Lab, Lexington; 6:45pm MIT Hayward Lot. One non-smoking bus. Purchase by February 12th. ter, Bldg E15, through Feb 14. Open 12-6 wkdys, 1-5 wknds. Call x3-4680.

- MIT Museum*—Inside the Large-Small House: The Residential Legacy of William W. Wurster '17. Period black-and-white photographs, contemporary color plates and architectural models of designs by the San Francisco Bay area architect who rose to prominence in the 1930s and 1940s with straightforward plans emphasizing functional organization, economy, privacy, informality, and a relationship to nature based on good sense and the California wood tradition. Through Mar 28.
- MIT Museum*—Ongoing Exhibits: Crazy After Calculus: Humor at MIT; Doc Edgerton: Stopping Time; Holography: Types and Applications; Light Sculputres by Bill Parker; Math in 3D: Geometric Sculptures by Morton G. Bradley, Jr.; MathSpace. Bldg N52. Museum hours are Tues-Fri 9-5, Sat-Sun 1-5. Call x3-4444.

The Sporting Woman*—Through Feb 5: An exhibition organized by Sally Fox based on research for her book of days published under the same title. Compton Gallery, Bldg 10, open 9-5 wkdy. Call x3-4444. Women, Film and Video*—Call for papers and presentations for New England Women's Studies Association 17th annual conference, Apr 16-17 at MIT. Categories: 1) Using film and video in teaching; 2) Women film makers discussing their work; 3) Images of women in film and video; 4) Women, film (video), and popular culture. For proposal information call dian fitzpatrick at 617-662-0417. Deadline: Feb 5.

The Future of Computing*—Feb 11: A lecture by David L. House, Senior Vice President, Corporate Strategy, Intel Corporation. Sponsored by the Media Lab, 5pm, Bartos Theater. Reception follows.

Pixels in Space: Electro-Holography at MIT*— Feb 23: Part of the Perspectives Series Talk, by Professor Stephen A. Benton, Academic Head of the Media Arts & Science Section and director of the Spatial Imaging Group of the MIT Media Laboratory. 5pm, Bartos Theater (Bldg E15).

Send notices for Wednesday, February 3, through Sunday, February 14, 1993 to Calendar Editor Rm 5-111, before 12 noon Friday, January 29.

MIT Museum Acquires Holography Collection

(continued from page 1) tion was "intact and safe."

The collection includes 341 lots of individual or grouped pieces-about 1,500 pieces in all. "Some fingering damage was suffered by some of the less well-protected pieces," Professor Benton said, "but in general the collection is in good shape.

The publication Holography Marketplace has described the collection as "the world's largest," noting that it includes many important archival materials. Another publication, The Official Museum Director, notes that the collection includes the first laser hologram, first white-light hologram, and early examples of reflection and integral holography.

Mr. Seamans said it includes documentary material from the laboratory of the inventor of holography, the late Dennis Gabor, who was awarded a Nobel Prize in physics in 1971 for his work in the field. The relatively modern science of holography-particularly computer-generated holography-has applications in many areas, such as medicine, design and manufacturing.

Mr. Seamans said the collection has been shipped to Cambridge, where it will be cleaned up and catalogued. The museum has had several exhibitions of holography in recent years, primarily works from the Media Laboratory's spatial imaging group and the Center for Advanced Visual Studies

'This is a tremendous collection," Mr. Seamans said, adding that a "reunion exhibition" is being planned for the newly acquired collection, possibly as early as the fall of 1993.

The MIT Museum is located at 265 Massachusetts Avenue in Cambridge. It has a large exhibition area of more than 10,000 square feet-and two galleries elsewhere on campus-that feature exhibitions of art/science-related works, as well as artifacts from MIT's own history.

Public Phone 2000 Is in Lobby 7 By Connie Abeln **Telecommunications** Systems ou may have seen one at Logan

or other major airports. It looks like a combination pay phone and computer terminal, and it is. It's the AT&T Public Phone 2000. Now you can see and try one of these technological wonders on campus, in the pay phone cluster in Lobby 7.

NO COINS, PLEASE

Especially designed for business travelers and those with special needs, the AT&T Public Phone 2000 features the latest in telecommunications technology. It is equipped with a data port for connecting a laptop computer or portable fax machine. A built-in keyboard lets callers access their electronic mail or dial-up databases. The keyboard can also be used as a telecommunications device for the deaf (TDD), and the handset is hearing-aid compatible, with a volume control

A 9-inch color monitor displays high-resolution graphics and text. Screen menus and function keys work like those of automated teller machines. Calling instructions can be displayed in French, Spanish, and German.

Graphical weather information, by state or nationwide, is the first on-line information service available through the Public Phone 2000. The 2000 provides speed-dialing access to travel and reservation services, and to these AT&T services:

• EasyLink, for electronic mail. • Language Line, for telephonebased language interpretation of over 140 languages.

• Message Service, to record one-minute messages for delivery to specified telephone numbers.

• Dual-Party Relay, in states where such assistance is provided to hearing and speech-impaired TDD

You pay for Public Phone 2000 services in high-tech ways. Besides collect and third-party billing, the 2000 reads the magnetic strips on AT&T Calling Cards, AT&T Universal Cards, and most commercial credit cards. Coins are not accepted.

Harding Is MLK Scholar

(continued from page 1) From 1961 to 1964 he and his wife, Rosemarie Freeney-Harding, worked in various capacities as full-time teachers, activists and negotiators in the Southern freedom movement.

In 1968, after several years as chair of the history and sociology department at Spelman College in Atlanta, GA, he became director of the Martin Luther King Jr. Memorial Center and chairperson of the nationally televised "Black Heritage" series.

He was one of the organizers and the first director of the Atlanta-based Institute of the Black World. After several research appointments and visiting professorships, he joined the faculty of the Iliff School of Theology in 1981. He has lectured widely in this country and

Rosenbladt, director of strategic alli-

ances, Hewlett-Packard Company;

Hiroshi Yashuda, manager of semi-

conductor strategic alliance, Toshiba

Corporation; and Robert Bishop, inter-

national president, Silicon Graphics.

MIT faculty were the internationaliza-

tion of R&D, importing human resource

practices, strategy and technical inno-

vation across borders, and a look back

at US-Japan relations during the 1980s.

Sponsored by MIT's Sloan School

Other specific topics covered by

ILP Opens Office in Palo Alto

(continued from page 1)

overseas on history, religion, literature and contemporary issues.

Dr. Harding and his wife conduct workshops and lead retreats on the connections between personal spirituality and social responsibility. Recently Dr. Harding was senior

academic advisor to the Public Broadcasting System television series, "Eyes on the Prize." His essays, articles and poetry have been published in books, journals and newspapers.

His best-known book, There Is A River, has been in print for more than a decade and will soon appear in a new paperback edition. One of his most recent books, Hope and History, calls attention to the issues and lessons available from teaching the story of the modern African-American freedom movement.

of Management, the Pacific Rim con-

ference was the second part of a two-

day Northern California Convocation

and Career Forum planned primarily to

Tang Family Gives \$4.7M to MIT

(continued from page 1)

an SM degree in management from MIT in 1972, represents the third Tang generation at MIT. After serving as a second lieutenant in the US Army, Martin Tang worked in San Francisco and in Taipei before returning to Hong Kong. He is now managing director of executive search consultants Spencer Stuart in Hong Kong. He has been president of the MIT Club of Hong Kong and secretary of the MIT Club of Taiwan and has served as an Educa-

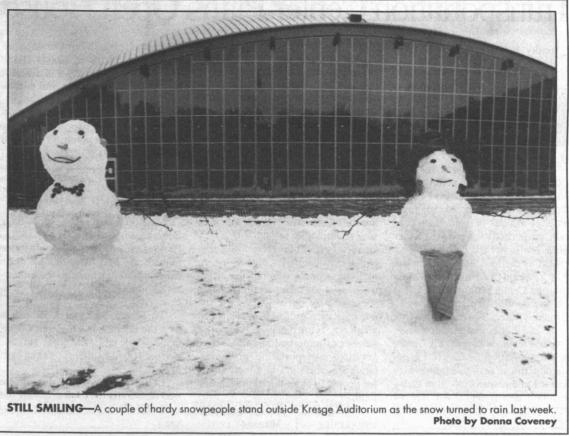
In the early 1970s, Jack Tang, with

his mother and siblings, donated in Ping Yuan Tang's memory the Tang Residence Hall, the 24-story graduate dormitory on MIT's West Campus. In 1986, he established the Tang Scholarship Fund for needy students of Chinese descent with a gift of \$1.5 million. The recent \$1.2 million addition to the Tang Fund is designated for the support of any undergraduates in need.

Jack Tang's daughters, Leslie Tang Schilling, who graduated from the University of California at Berkeley, and Nadine Tang, who graduated from Boston University and also attended UC Berkeley, have also been instrumental in the family's decision to support MIT. Ms. Schilling is a real estate developer in San Francisco and Ms. Tang is a social worker in the counseling center at Mills College. Both are active in community cultural, educational and business groups in the San Francisco area. In appreciation for their education at the University of California, the Tang family has also pledged a \$4 million gift to Berkeley.

'Our family has always believed in giving back to the community," says Leslie Tang Schilling. "It is our hope that our gift to MIT will encourage others to be generous to MIT in their turn.' **Carla Lane**

address the continuing educational and career management needs of Sloan alumni/ae. On the first day, the forum allowed West Coast company representatives to meet informally with MIT/Sloan graduates and current students to discuss career opportunities in the region. Nearly 700 MIT/Sloan graduates now work in the northern tional Counselor. California area.





MANY OPTIONS—AT&T's Public Phone 2000, located in Lobby 7, offers many Photo by Donna Coveney new options.

users (available in Massachusetts).

The United Way of Massachusetts Bay campaign is almost \$3 mil-x3-7914 and speak with Susie Kendall or Barbara Gilligan in the Office of lion short of its goal of \$47 million and will keep the 1992 campaign books open until February 15. MIT will continue its campaign as well since we are short of our goal of \$326,500 (currently at 89 percent of our goal with 1,536 donations totaling \$287,659).

Overall donations are down this year at MIT with approximately 14 percent of MIT employee's having contributed. However, MIT's leadership giving (LG) donations (gifts of \$1,000 or more) are up from last year with 50 LG gifts totaling \$78,480, up from last year's 43 gifts for \$67,534.

MIT donations range from \$1.00 to \$10,000 with an average gift of \$187.30. If everyone would think about helping out those less fortunate by donating some time or money to the United Way, many of our friends and neighbors in need will have a happier 1993. There is still time to donate, so contact your department solicitor now. Or call or Barbara Gilligan in the Office of Special Community Services if you have a question.

Thanks for caring!

United Way Drive Continues

Lecture Series To **Begin February 3**

Dr. Eric R. Kandel of Columbia University's Center for Neurobiology and Behavior will be the inaugural lecturer at noon Wednesday, February 3, in a series arranged by the MIT Center for Biological and Computational Learning. He will speak in Rm. E25-111.

Dr. Kandel will discuss "Molecular Biological Approaches to Long-Term Memory."

The biweekly series is supported by the National Science Foundation, the Department of Brain and Cognitive Sciences and the MIT Artificial Laboratory.



MIT Campus Police officers don't necessarily limit their efforts to the campus. As a result, two murder suspects are in custody.

Sgt. Stephen Daley, the CP training coordinator, was on his way to work on the morning of December 27 when his car acted up and he pulled into the Shell gas station on Memorial Drive.

The officer, who was not in uniform, used the telephone inside the station to call CP headquarters for a cruiser to come get him.

While he was on the phone, a man entered the station office and heard the conversation. Then he became verbally abusive toward the officer and the gas station attendant. When Sgt. Daley asked him to leave, the man said no police officer was going to tell him what to do.

Then he attacked Sgt. Daley. As blows were being exchanged, Sgt. Daley shouted to the attendant to call the police. As the struggle continued, the officer and his assailant-who was six feet, five inches tall and weighed about 260 poundsended up outside the office near the station's pumps

With the pumps between him and the man, Sgt. Daley said, he worked his way back to his car. At the same time, the assailant returned to the gas station office and began tipping drawers open behind the counter and assaulting the attendant.

Sgt. Daley, a certified defensive tactics instructor at the Massachusetts Criminal Justice Training Council, is also a certified instructor in the use of oleoresin capsicum, a groundup red pepper solution used by police to subdue criminals

He got an aerosol can containing the substance from his car and, as the man left the station and renewed his attack on the officer, Sgt. Daley used the spray. He was then able to hold the man until Cambridge and MIT police arrived.

The 31-year-old Charlestown man and a companion, who had remained in the car they arrived in, were charged with unarmed robbery. The Charlestown man also was charged with assault and battery and malicious destruction of property. Later, both men were indicted on murder charges in the slaying of the man who owned the car they were driving.

Did Sgt. Daley, who has been a police officer for 15 years, pick up any tips for his training sessions?

"Probably to avoid having your car break down," he said.

Dr. Alan P. Lightman is on a roll. Soon after receiving accolades nationally for his textbook about the connections between science and the humanities, Great Ideas in Physics (MIT Tech Talk, Dec. 9), he has been showered with critical praise for his first novel, Einstein's Dreams (Pantheon Books).

Here's how New York Times

essays on the human side of science. If Dr. Lightman's new book were a painting, the Times critic said, "it would have been painted by Magritte. Its images are beautiful but disturbing, meticulously rendered trompe l'oeil exercises with a haunting philo-

sophical subtext ... ' "By turns whimsical and meditative, playful and provocative, Einstein's Dreams pulls the reader into a dream world like a powerful magnet ... In moving from science writing to fiction, Mr. Lightman has made an enchanting, delightful debut."

A more modest, but still notable writing effort is that of Ann Davis Shaw, associate director for Career Services and Preprofessional Advising in the Office of Career Services.

Her feature article, "How to Use Your Career Counseling and Placement Office," appeared in a job opportunities supplement to The Black Collegian, the career and self-development magazine for African-American students.

And some noteworthy magazine commentary:

By Ellen T. Harris, associate provost for the arts and professor of music, in the January/February issue of "Preview," the magazine of the Boston Museum of Fine Artsa defense of Jenny Holzer's "Selections from Truisms, Inflammatory Essays, The Living Series, The Survival Series, Under a Rock Laments, And Child Text." While it has "raised the ire of some visitors to the MFA because of its graphic language and social commentary," Professor Harris writes, Holzer "encourages us to think about how much our perception of all that we see and not just her work, depends on us rather than on the object."

By Dr. Lincoln P. Bloomfield, professor emeritus of political science and senior lecturer, in World Monitor, the Christian Science Monitor Monthly-an essay on "Policing World Disorder." He asserts that the US-UN actions in the Gulf and Somalia represent "prototypes of something new under the sun... a new model of what might be called 'collective preemptive intervention'-a policing technique situated somewhere between unarmed 'peacekeeping' and outright community warfare against aggressors."

The Christmastime Salvation Army holiday kettle drive at MIT-conducted in front of 77 Massachusetts Avenue by volunteer bell ringers from the MIT community-raised \$844, reports Paul Parravano, assistant for community relations in the president's office.

"While the temperature was right cold back on December 10," he told the volunteers in a letter, was running hot into the pot." The entire effort was marked by a "warm and generous spirit," he said, "demonstrating that the MIT community cares deeply about our less fortunate neighbors.



PEEK-A-BOO—Jeremy Wolfe, visiting associate professor in brain and cognitive sciences, demonstrates one way to poke yourself in the eye during an IAP talk he gave last week. The talk was titled "Ten Things You Can Learn by Poking Yourself in the **Photo by Donna Coveney**

IAP HIGHLIGHT

How to Interpret a Poke in the Eye

By Elizabeth A. Thomson News Office

lose your eyes and gently rub the outside corner of one eye. Press a little harder. What do you see?

If you're like many of the approximately 50 participants at a talk last week by Jeremy Wolfe, visiting associate professor in brain and cognitive sciences, you saw a small white spot, or a black spot with a white rim. But where does the spot come from? What causes it?

According to Professor Wolfe, whose talk was titled "Ten Things You Can Learn by Poking Yourself in the Eye," "what you're seeing is the result of mechanically stimulating tissue that is ordinarily stimulated by light." In other words, the signals sent to the brain from the rubbing were interpreted as light, "even though you know [the signals] were caused by your finger."

As Professor Wolfe tried the technique again, he noted that what he was "seeing" also appeared to be a little bluish. "That's due to stimulating rods [one group of light-sensitive bodies], which are around the corners of the eye," he said. (Cones, the other group of light-sensitive bodies, are located more in the center of the eye.)

And so began a series of demonstrations in eye-poking that taught more than 10 things about the eye and visual phenomena. Some of these are summarized above and below.

In one demonstration—an example of advanced eye-poking-Professor Wolfe asked the audience to "take a couple of fists and push straight back on your eyes. Notice the patterns that appear.'

One person described seeing black and white checkers. Another expanded on that by noting that the squares of the checkerboard appeared to grow larger with distance from the center.

Professor Wolfe acknowledged that "we don't actually know what [that checkerboard] is, but it looks like you could be looking at your own visual cortex," or the part of the brain that handles vision.

Further, he continued, the growth of the checkerboard squares could correspond to the organization of the visual cortex. The small "squares" in the center represent cells that can make out fine details. These cells don't extend across the whole visual field because the human brain isn't big enough to process all of the information that would come in if they did. So with distance from the center, cells get progressively larger and less capable of making out details.

In a brief aside, Professor Wolfe noted that some people see the same sort of "checkerboard" effect during migraine headaches. Here, he said, "you're almost definitely seeing your visual cortex."

Another demonstration involved slowly pressing on an eyelid, with the eyes open, while focusing on a certain object-in this case Professor Wolfe's nose. "Notice that I appear to move from side to side," he told the audience. "But where [is your brain] getting the signal for motion? With slow pushes, your eye is not moving." It turns out, he said, that by pressing on the eye "you're stretching your eye muscles." And these muscles have receptors in them that are telling the brain that the eye is actually in a different position. "So the brain says, 'the eye must have moved."

This happens, Professor Wolfe said, because "the brain is continuously trying to make the best of a bad deal in terms of what you're seeing."

Throughout his talk Professor Wolfe encouraged questions and explained what members of the audience said they were seeing. He was stumped, however, after one demonstration when a participant described "lots of color, then swirls, then a butterfly."

DOT EVENT

Transportation Center Plans Open House

Faculty members from MIT and versities which comprise the US De- Civil and Environmental Engineerpartment of Transportation's Region One University Transportation Center will take part in an open house Saturday, Feb. 6, on graduate education opportunities in the rapidly changing field.

the four other New England uni- East Professor in the Department of Storrs, University of Rhode Island

Dr. Joseph M. Sussman, the J.R. Amherst, University of Connecticutand Harvard University will describe

reviewer Michiko Kakutani describes the book:

"Mr. Lightman ... has begun this captivating book with a simple premise: he purports to set down what Einstein dreamed during the late spring and early summer of 1905 when he worked in the Swiss Patent Office in Bern and published several papers that would revolutionize 20th century physics... The dreams Mr. Lightman has given his fictional Einstein also deal with the mysteries of time and space... [and] with the human condition and its time-ridden existence. In each dream, Mr. Lightman postulates a different world in which time obeys different rules, rules that have a direct impact on psychology and behavior."

Dr. Lightman, a physicist, is professor of science and writing and head of the Program in Writing and Humanistic Studies. His other books include two graduate-level texts and

QUOTES:

"I think people here realize we shouldn't be taking things for granted at all."-Professor J. David Litster, vice president and dean for research, in an Associated Press story on the increasing competition for research funds.

"Every time they come here it is like a funeral."-Professor Michael L. Dertouzos, director of the Laboratory for Computer Science, in a New York Times story on the potential effects of IBM's difficulties on the financing of computer science research.

Charlie Ball

The event will be held from 1-5pm in the Mezzanine Lounge of the Student Center. The snow date is Feb. 13.

Students preparing for graduate study, or already in a graduate program, are invited to attend. The wider public is also invited.

MIT is the lead university in the DOT's Region One University Transportation Center program. The event is being coordinated by Thomas F. Humphrey, director of the Region One center and a principal research associate and lecturer with MIT's Center for Transportation Studies (CTS), an interdepartmental organization with students and researchers from many academic departments. All five of MIT's schools are represented in the CTS.

ing and head of the department's Transportation Systems Division, will be the first speaker. He will outline the opportunities for graduate study in education.

"The transportation field is undergoing revolutionary changes with the integration of information and communications systems into the transportation context," he said in announcing the open house. "Development of new technologies, along with a new appreciation of the relationship between international competitiveness, national productivity and the effectiveness of the transportation system presents new opportunities for the transportation professional. New England is a region that is blessed with a number of important and innovative graduate transportation programs. Graduate education is a mechanism for people to enter the transportation field."

Faculty and students from MIT, University of Massachusettstheir graduate programs and will be available for questions after the presentations.

For more information contact the Region One Transportation Center at Rm 1-153, x3-0753.

FirstSearch Extended

Unlimited free access to 20 large information databases in the OCLC FirstSearch online reference service through the MIT Libraries has been extended through June, but the authorization number and password have been changed.

To access FirstSearch databases over the internet, use this telnet command: <epic.prod.oclc.org>; authorization:100-089-681; password: hang.cxam.

(A full description of this service may be found in the 1992 TechTalk file in TechInfo, in the November 12 issue.)