Massachusetts Institute of Technology



October 16, 1974 Volume 19 Number 16

# Bradley Dewey, '09 Dies at 87

Bradley Dewey, '09, chemical engineer and industrialist and a member of the MIT Corporation for 43 years, died at his home in New London, N.H., Monday evening, October 14. He was 87.

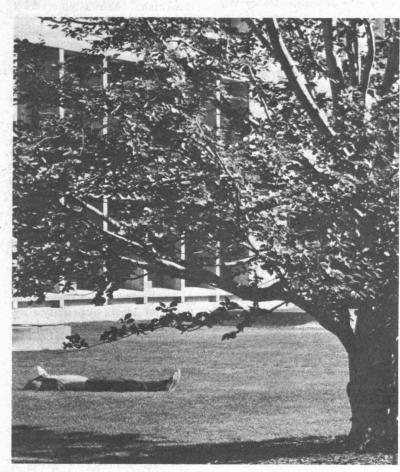
Funeral services will be at 3pm Thursday at St. Andrew's Church, New London. Burial will be private. Contributions in lieu of flowers may be made to the New London Hospital, New London, N.H.

In years of continuous service, Mr. Dewey was the oldest active member of the MIT Corporation. He was co-founder and former president of the Dewey & Almy Chemical Co., Cambridge. His own professional developments from World War I gas masks and World War II synthetic rubber to sealants for tin cans and plastic films for frozen foods—had become familiar to generations of Americans.

But he counted his service to MIT among his more important achievements. He was an active member of the Class of 1909, became an ex-officio member of the Corporation in 1931 when he was elected 38th president of the MIT Alumni Association. He was elected a Life Member five years later. His 43 continuous years of service on the Corporation made him the fifth longest tenured Corporation member since the founding of the Institute.

During his long tenure in the Corporation Mr. Dewey served on 14 of the Visiting Committees. He also served as a member of the Auditing and Membership Committees, further serving as Chair-

(Continued on page 2)



In the Eastman Court with the copper beech still in full leaf last week the summery warmth attracted one lone sun-worshipper for a nap.

Photo by Calvin Campbell

## Flory Named Nobel Laureate

Dr. Paul J. Flory, professor of chemistry at Stanford University and visiting professor of chemical engineering at MIT, has been awarded the 1974 Nobel Prize in Chemistry.

The announcement was made Tuesday by the Royal Academy of Science in Sweden, which cited Professor Flory for his "fundamental achievements, both theoretical and experimental," in the field of the physical chemistry of macro-molecules, which include materials such as polymers. Professor Flory, generally recognized as the world's leading authority in the field of polymer physical chemistry, was at MIT as visiting professor in the Department of Chemical Engineering during the fall term in 1973 and is planning to return during the fall term of 1975.

During his visit last fall, he presented a special subject on Physical Chemistry of Polymers in collaboration with Dr. Edward Wilson Merrill, Carbon P. Dubbs Pro-(Continued on page 2)

# Unique Energy Study Sponsored by MIT

More than two dozen leading businessmen, economists, engineers, government officials and scientists from 12 countries have begun a unique two-year assessment of the energy options available to industrialized countries primarily in the years 1985-2000.

The Workshop on Alternative Energy Strategies (WAES) is directed by Dr. Carroll L. Wilson, Mitsui Professor in Problems of Contemporary Technology at MIT's Sloan School of Management. MIT and its Energy Laboratory are sponsoring the workshop.

The first of the several sessions

# Lowell School Enrollment up

Enrollment has more than doubled this year in the 71-year-old Lowell Institute School, which conducts evening classes at MIT.

In fact, some of the courses are so oversubscribed that sections which don't begin until February, 1975, are already full.

Altogether 183 students are registered for 10 subjects being offered in the fall term. Last year, total fall term enrollment was 83. Some students are enrolled in more than one subject.

Dr. Bruce D. Wedlock, director of the Lowell Institute School, credits much of the enrollment increase to a mini-advertising campaign the School developed during the summer. Small display ads were placed in education sections of local papers and in a number of (Continued on page 3) the participants will hold in various parts of the world during the two-year study was held on Cape Cod and ended last week.

The meeting, which began Oct. 2, was opened with remarks of welcome by Howard W. Johnson, Chairman of the MIT Corporation.

The United States Workshop participants are:

Thornton F. Bradshaw, President, Atlantic Richfield Co.

Walker L. Cisler, Chairman, Detroit Edison Co., Chairman, World Energy Conference.

John T. Connor, Chairman, Allied Chemical Corp.

Richard C. Gerstenberg, Chairman, General Motors Corp.

Dr. H. Guyford Stever, Director, National Science Foundation.

In addition to those from the US, the participants attending the meeting at Cape Cod were:

Canada—Marshall Crowe, Chairman, National Energy Board.

France-Jean Couture, Conseiller du President, Societe Generale.

Iran—Dr. Khodadad Farmanfarmaian, Chairman, Bank Sanaye Iran.

Japan—Dr. Shuzo Inaba, Commissioner, Japan Atomic Energy Commission, President, Japan Computer Usage Development Institute; Dr. Saburo Okita, President, Overseas Economic Cooperation Fund, Chairman, Japan Economic Research Center, and

(Continued on page 2)

## Lobby 7 Lists Series of Events

Chamber music, roller skating and pennywhistle tunes appear on the schedule of noon-hour presentations in the Building 7 lobby during the next 10 days.

At noon today, Wednesday, Oct. 16, an MIT chamber ensemble will offer music by C.P.E. Bach, Bonelli, Gabrieli, Schein, Holborne, Hovaness, and Adler.

Next week's activities will start Tuesday, Oct. 22, with a demonstration of figure skating on roller skates by Barbara Ann Wilson, a sophomore in metallurgy and materials science from Ft. Worth, Tex. Miss Wilson, who has taught roller skating and participated in roller skating competition for several years, will include school figures and free skating in the demonstration.

# Five-day Stop Smoking Plan to be Offered

A traveling show of sorts is coming to MIT next week—not to entertain, but to offer some potentially life-saving help to smokers. For five days, during the lunch hour, a team of doctors from the

New England Memorial Hospital in Stoneham will conduct a group therapy clinic that goes under the name of "The Five-Day Plan to Stop Smoking."

The "Five-Day Plan" method, originated a number of years ago by a physician and a clergyman from Lancaster, Mass., has been gaining increasing attention. The sponsors say the method has enabled more than 2,000,000 persons to stop smoking, and that 80 percent of those attending the clinics "successfully kick the smoking habit." The MIT clinic will run Monday through Friday, Oct. 21-25, from 12 to 1pm each day, in the Vannevar Bush Room (10-105). It is open to all members of the MIT community and their families for a registration fee of \$2.50 per person. No pre-registration is necessary. "Cancer of the lung isn't as rampant among these smokers as among cigarette smokers," he said, "but they are susceptible to other serious and sometimes fatal smoking-related disorders, such as cancer of the throat, tongue, mouth, larynx, esophagus and stomach.

Dr. Point stressed that the program is purely voluntary. "We're not trying to make anyone do anything," he said. "It's just an opportunity for us to be supportive of those who would like to stop smoking. We're offering it as a service to the community. It's something that MIT physicians believe in, but we don't have the expertise to put it on ourselves."

"The \$2.50 price is a bargain," said Karen Cohen Holmes, assistant for health information and education in the Medical Department, which is sponsoring the clinic.

"Since we made arrangements to have the clinic come here, the price has gone up to \$5, and the fee for some of the other methods, such as hypnotism, can run as high as \$35 an hour and more." She also noted that the \$2.50 fee is "about the cost of a half of a carton of cigarettes, what the average smoker uses weekly."

Dr. Warren Point, assistant medical director, gastroenterologist and an "ex-smoker who quit 19 years ago," gave the clinic his strong endorsement.

"I'm concerned about the health of our community here," he said. "There is a great deal of support for this throughout the department. Even the smoking physicians recognize that smoking is an extremely serious public health problem."

Dr. Point said that cigar and pipe smokers should consider attending the clinic, as well as cigarette smokers. The New England Memorial Hospital team is made up of a number of different specialists, all experienced in the psychological and medical problems arising out of smoking. The director of the program is the hospital chaplain, the Rev. Walter Kloss.

The sponsors describe the method employed at the clinic as "a practical approach to personal habit control and sensible health procedures." It offers, they say, "a comprehensive, all-out plan of attack based on sound physical, psychological principles designed to strengthen the will and overcome the habit."

One of the features of the plan is a "buddy system," whereby participants are paired in order to give support to each other.

The clinic is structured so as to deal each day with the problems that are likely to occur at that point in time in someone's attempt to give up smoking.

The method was developed more than 12 years ago by two members of the Seventh-Day Adventist Church, Rev. E.J. Folkenberg and Dr. J. Wayne McFarland. Since then it has been used throughout the world under the sponsorship of the Seventh-Day Adventists.

In the Greater Boston area, the New England Memorial Hospital team has conducted the clinic for a number of businesses, including Polaroid and MITRE, and several high schools. MIT is believed to be the first university in the area to have the clinic.

## Faculty Meeting

Chancellor Paul E. Gray will review and discuss the Institute budget at the monthly faculty meeting today, Wednesday, Oct. 16. The meeting will be held in Rm. 10-250 starting at 3:15pm.

Other agenda items include a progress report on Committee on Educational Policy activities by Professor Elias P. Gyftopoulos, chairman of the faculty.

# Industrialist Bradley Dewey Dies

(Continued from page 1) man of the Auditing Committee. He chaired seven of the Visiting Committees in various years, including Biology, Chemistry, Chemical Engineering, Food Technology, Geology, Mathematics, and Metallurgy. He served as a member of seven additional Visiting Committees: Division of Industrial Cooperation, Humanities, Industrial Management, Military Science and Technology, Mining Engineering, Nuclear Engineering, and Textiles. He also served on the Advisory Council of the then School of Industrial Management.

Throughout his tenure he was a strong advocate of management education for chemical engineers and his ideas played an important role in the development of the curriculum in Chemical Engineering as well as in Course XV, the Course previously known as Business and Engineering Administration, which later became the undergraduate curriculum of the Alfred P. Sloan School of Management.

His father, the famed Professor Davis R. Dewey, for whom the Dewey Library of Economics and Social Science at MIT is named, had been one of the leading economists of his day and was instrumental in the establishment of the new Course XV in 1914 as an outgrowth of the Department of Economics. The elder Dewey inculcated young Bradley with the importance of combining engineering and economics and the lessons of those early days were confirmed by Bradley Dewey in his own life and professional career.

Howard W. Johnson, chairman of the MIT Corporation, in a letter to Corporation members, said:

"Bradley Dewey's warmth and sense of humor were appreciated by all those who knew him. His interest in the life and development of MIT was a source of unflagging strength. He was widely known for his readiness to offer constructive criticism regardless of the situation, and this quality was an immeasurable asset to the Institute. He insisted that students of science and engineering be broadly trained in the sphere of business management and the humanities as well as in their own particular specializations, as a basic preparation for the leadership role he saw increasingly coming to the scientist and engineer. Mr. Dewey was deeply patriotic and interested in the world around him; one of his greatest joys was his home, Broad Lea, in New Hampshire where he spent much of his time in later years, and in receiving visits from his family and from a worldwide network of friends and professional colleagues."

As a young officer with the US Army's Chemical Warfare Service from 1917-19, Mr. Dewey and another young chemical engineer he had met at MIT, Charles Almy, Class of 1910, supervised the design and mass production of the gas masks used by American troops during World War I. In 1919, Mr. Dewey and Mr. Almy formed the Dewey & Almy Chemical Co., Cambridge, Mass., with Mr. Dewey as president. Mr. Almy died shortly after World War II. The company's purpose was to provide chemical and engineering services to industry and, to achieve this, established a large research organization in which Mr. Dewey took an active part.

A major problem in the food canning industry at the time was a safe sealant for the tops and bottoms of tin cans. Paper gaskets had been used and, later, solvent solutions of natural rubber, but both had been unsatisfactory.

In 1921, Mr. Dewey discovered the first water-base Latex sealing compound which is still used inside the crimped rims by which tops and bottoms are attached to tin cans. For many years, a principal business of Dewey & Almy was the manufacture of the latex sealant and the machines used in the canning industry to apply it.

In 1939, Mr. Dewey directed his company's research on rubberlike elastomers resulting in the construction of a semi-commercial pilot plant for making synthetic rubber. Several months before Pearl Harbor, Mr. Dewey began construction of a full scale plant, which, when completed in 1942, became one of the first, if not the first, privately built and operated synthetic rubber plants in the East.



**Bradley Dewey** 

Because of his technical experience with synthetic rubber, Mr. Dewey became Deputy Rubber Director of the War Production Board in the fall of 1942 and in 1943 succeeded William Jeffers as Rubber Director. Under Mr. Dewey's leadership, the building of a synthetic rubber industry was completed in record time.

Returning to his company, Mr. Dewey foresaw the growth of freeze preservation of consumer foods and began work on the development of plastic films for the vacuum sealing of such foods at the time of freezing.

Out of this research came the kind of plastic bags and processing techniques now used in the frozen food industry. Foods are vacuumpacked and sealed inside the bags and frozen, after which the bags are treated with hot and cold water, causing them to shrink tightly against the food products inside. The technique is credited, among other things, with making possible the freezing and marketing of whole turkeys. The process became the basis for the company's CRYOVAC Division. Corp., began the manufacture and marketing of plastic containers for everything from food to health care and beauty products. Mr. Dewey sold Bradley Container Corp. to American Can Co. three years later.

In 1958, Mr. Dewey founded still another firm, Hampshire Chemical Co., Nashua, N.H., to manufacture chelating agents used in chemical processing. This firm later was acquired also by W.R. Grace & Co.

Mr. Dewey was born August 23, 1887, at Burlington, Vt. He attended Harvard College where he qualified—in 1908—for the bachelor's degree in three years. He then entered MIT to study chemical engineering and received his SB degree from the Institute in 1909.

Upon graduation, Mr. Dewey joined the American Sheet and Tin Plate Co., a subsidiary of the US Steel Corp., and worked as a laborer for the firm in several locations for a year to familiarize himself with the operations. He then formed a small research organization for the company and the organization later became incorporated into US Steel as the first research and development department in a major steel company. He entered the Army in 1917 as a captain, rose to colonel and commander of the Gas Defense Division of the Chemical Warfare Service, and received the Distinguished Service Medal for Merit in 1919 for his wartime work. He was the Army's youngest full colonel.

Mr. Dewey was long active in a variety of government services. He was a member of the Guided Missiles Committee of the Joint Chiefs of Staff for several years, serving as its chairman in 1945-46, and represented that committee as an official observer at the atomic bomb tests at Bikini Atoll in the Pacific following the war. He was a former member and chairman of the American Chemical Society's advisory committee to the Army's Chemical Warfare Service and a consultant to the Army's Quartermaster General and the Army's Office of Scientific Research and Development.

His scientific and professional responsibilities were many. He was a long-time member of the American Chemical Society and was its president in 1946. He was a member of the Society of the Chemical Industry, the American Philosophical Society, the Institute of Food Technologists, the University of Notre Dame Advisory Council for Science and Engineering, the Research Board for National Security, the American Institute of Chemical Engineers, a Fellow of the American Academy of Arts and Sciences, a former trustee of the Mt. Auburn Hospital in Cambridge, a former elected member of the Cambridge

# MIT's Carroll Wilson Heads Unique Energy Assessment

(Continued from page 1)

Dr. Masao Sakisaka, President, National Institute for Research Advancement, President, Institute of Energy Economics.

The Netherlands—A.A.T. Van Rhijn, Deputy Director General for Energy, Ministry of Economic Affairs.

Norway—Christian Sommerfelt, Chairman, Elkem-Spigerverket A/S.

Sweden-Erland Waldenstrom, Chairman, Granges AB.

United Kingdom-J.C. Davidson, Director, Shell International Petroleum.

The participants will be assisted in their activities in the Workshop by one or more associates or aides from their organizations who will devote a substantial amount of time to the various workshop studies. More than 20 associates attended the first session. Others were also present from Denmark, the Federal Republic of Germany, Italy and Mexico.

One project of this international workshop is to be a series of national studies of several different demand options. This project will focus on identifying alternative methods of reducing waste and increasing the efficiency of energy use in the various countries. Policies to stimulate energy efficiency will be evaluated for their application to the circumstances of individual countries. Use of the same methodology in these studies should facilitate useful comparisons between countries. Another task force will begin to develop a global framework for integrating combined national supply and de-

## Dining Hall Cooks Return

Members of the Cooks and Pastry Cooks Association (CPCA) voted 28 to 9 Thursday to return to their jobs, thus ending the union's strike against MIT and permitting campus dining halls to reopen.

Dining service employees began returning to work on Friday, restoring limited service to several campus dining facilities. As of yesterday, full service at all facilities was resumed.

The decision of the CPCA, which represents 54 employees in campus dining halls and the Faculty Club, followed termination of the strike by members of the Service Employees' International Union Local 254 on October 8.

## Weisskopf

mand options, including such factors as capital needs, import patterns, producing country expenditures and absorptive capacity and balance of payments effects.

The Cape Cod meeting held at the New Seabury Country Club, Mashpee, Mass., was the first of several such sessions that will be held in various parts of the world during the two year study.

Professor Wilson views the Workshop "as an experiment with a new mode of assessment for critical global problems."

"Intergovernmental machinery rarely can afford a time horizon longer than that of governments usually less than five years—and is not well designed for the conduct of assessments involving a mixture of political, social, economic and technical factors for a period 10-25 years into the future," Professor Wilson said.

"Intergovernmental machinery. will be severely strained in dealing with the probable continuing crises of supply and distribution of the next decade," he continued.

If this Workshop is successful, this type of approach may be applied to other global problems such as food and materials, Professor Wilson said.

## Flory Wins Nobel Prize

(Continued from page 1)

fessor of Chemical Engineering. He also consulted with students and faculty members engaged in polymer research in the department.

Professor Flory was no stranger to the department even before his appointment as visiting professor. He served as a member of the department's visiting committee from 1965 to 1967.

Professor Flory, a native of Illinois, received his bachelor of science degree from Manchester College, Indiana, in 1931, and his Doctor of Philosophy in physical chemistry from Ohio State University in 1934.

He served as a research chemist for a number of companies, including E.I. duPont deNemours and Co., the Standard Oil Company and the Goodyear Tire and Rubber Company. He was professor of chemistry at Cornell University from 1948 to 1956, when he became executive director of research at the Mellon Institute.

He was named professor of chemistry at Stanford in 1961 and he served as chairman of the Department of Chemistry at Stanford from 1967 to 1969.

He is the author of more than 240 papers. His textbook, *Principles of Polymer Chemistry*, has been the leading work in the field for 20 years. He completed a second book, *Statistical Mechanics of Chain Molecules*, in 1969.

## **UROP** Funds

UROP is still receiving proposals and making financial awards to UROPers. To increase your chances of getting funding, please submit your proposals now.

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Mr. Dewey served as president of Dewey & Almy from its founding in 1919 to 1952 when he became chairman of the board of directors. Two years later, in 1954, the company was acquired by W.R. Grace & Co. Mr. Dewey served as a director of W.R. Grace & Co. until 1960 when he became emeritus director, an honor he held until his death.

After the original company was acquired by W.R. Grace & Co. in 1954, Mr. Dewey, while on a trip to Europe, became acquainted with new developments in the manufacturing of plastic tubes for packaging all kinds of consumer products. He acquired US rights to the, process, formed the Bradley Container Corp., and, in a joint venture with the Olin Mathieson school committee, and a former vestryman at St. Andrew's Church in New London.

Mr. Dewey received various honors, including the Medal of the Society of the Chemical Industry in 1944 and honorary doctors' degrees from the University of Akron (1944), Northeastern University (1945) and Harvard University (1945).

Survivors include three children: Dr. Bradley Dewey, Jr., of Hanover, N.H.; Mrs. Douglas G. Carroll, Jr., of Baltimore, Md.; Mrs. S. Leonard Kemp III of Andover, Mass., and 16 grandchildren and five great grandchildren. His wife, the former Marguerite Mellon of Chicago, Ill., whom he married in 1915, died last June. Another son, Dr. Davis R. Dewey II, died in 1972. Both Bradley, Jr., and Davis received ScD degrees in chemical engineering from MIT in 1940.

# Symposium

A two-day symposium in honor of Dr. Victor F. Weisskopf—featuring talks by 10 leading scientists, including six Nobel laureates —will be held in Kresge Auditorium this Thursday and Friday, Oct. 17 and 18. (See the calendar for a schedule of the talks.)

The MIT Department of Physics, which Professor Weisskopf headed from 1967 to 1973, is sponsoring the event.

In conjunction with the symposium, the Science Library, Rm. 14S-100, has an exhibit, "Victor F. Weisskopf: His Impact in Publications," and the Physics Reading Room, Rm. 26-152, has a display of Dr. Weisskopf's book, Knowledge and Wonder; The Natural World as Man Knows It, in the 11 languages into which it has been translated.

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# MIT to be Well Represented In Charles Regatta Sunday

The main propulsion for MIT's field of entrants in the tenth annual Head-Of-The-Charles Regatta scheduled for Sunday, Oct. 27, will be the incentive to take home the handsome Paul Revere overall point trophy.

The award, which goes to the club or college amassing the greatest number of points in the regatta's 17 scheduled events, was won by Harvard last year. MIT finished second in a record-breaking field of 95 competing colleges, schools and clubs.

This year's competition—the largest one-day regatta in the world—will bring together over 2,000 participants from over 100 clubs, colleges and universities.

Patterned after the world famous "Head-Of-The-River" race in England and sponsored by the Cambridge Boat Club, the threemile upstream race will test the steering of over 450 boats. Entrants are started at about 15-second intervals as computers record the starting and finishing times of each shell down to a tenth of a second. Results are relayed to Regatta Headquarters at the Eliot Bridge, and the unofficial order of finish is announced by loudspeakers at the finish line.

MIT competitors to watch in this year's field of 2500 entrants include John Everett of South Easton, Mass., who won a gold medal for the United States this summer in the Eights event at the World Rowing Championship in Lucerne, Switzerland. MIT junior Gary Piantedosi from Burlington, Mass., who was also a member of the US team at Lucerne, will join **Everett** in the Elite Fours Events of the Charles regatta, scheduled for 1:05pm. Their teammates for the race will be Peter Beaman of Hampton, N.H. (bow), James Gorman of Greenfield, Mass. and Michael Newman of Smithtown, N.Y. (coxswain)

Ms. Dallas Abbott, a senior in Earth and Planetary Sciences from Auburn, Me., and Ms. Roseanna Means, a special student from Manchester, Mass., who won the Women's Eastern Collegiate championship last May, will be the only members of their sex competing in the Pairs event, scheduled for 2:50pm on race day.

According to Peter H. Holland, head rowing coach at MIT and assistant professor of athletics, MIT's Intermediate Fours entry (Event No. 6, at 1:45pm) will be a scull with a great deal of muscle. Rowing for that event will be Andrew Kernohan of Nova Scotia, Canada, a member of the winning Elite Fours in the 1972 Head-Of-The-Charles Regatta, and John Miller of Cambridge, Mass., coach of MIT's women's crew. Rounding out the team will be Rick McKie, Douglas Looze and James Clark, coxswain, all of whom graduated from MIT last June.

MIT will also be seeking first place bronze medals in the Double Sculls, Lightweight Eights, Novice Singles, Intermediate Fours, Junior Eights, Intermediate Eights, Women's Eights and Elite Eights events.

James Gorman, who is majoring in Aeronautics and Astronautics at MIT, is captain of the 1974-75 varsity heavyweight crew that will be competing for the Elite Eights Boston Globe Challenge Trophy.

That concluding event of the regatta, scheduled for 6pm, will have as representatives from MIT, in addition to Gorman, Mark Pickrell, Potomac, Md., Tom Higgins, Delaware Water Gap, Pa., Doug Johnston, Auburn, N.Y., Joe Healey, Issaquah, Wash., Craig Christensen, New Canaan, Conn. and Peter Beaman, Michael Newman, and Gary Piantedosi—all registrants in the Elite Fours.

Ingred Klass of Wickliffe, Ohio, is captain of MIT's women's crew, which will be competing against teams from such schools as Radcliffe, Yale, Princeton, Wellesley, Syracuse and Boston University.

National women's rowing champion Gail Pierson, visiting associate professor of management at MIT is scheduled to compete in several of the day's events as a representative of the Cambridge Boat Club.

# Culliton Responds to Globe

(The follwing letter from James J. Culliton was sent October 10 to the editor of the Boston Globe in response to statements made by Michael Ansara in a column published in the Globe on October 2.

(Mr. Ansara's column said in part:

("At MIT, for example, a grade 1 office worker starts at \$80 a week. That means that for a full week's work she may take home as little as \$63. Further, MIT, and most other universities, operate merit plans which in these inflationary times are deadly for their employees. Under these plans, there are no automatic raises of any kind, no cost of living increases. A raise is granted at the pleasure of the supervisor.")

#### To the Editor:

I would like to take exception to and make comments on some statements in the recent column by Michael Ansara in which he asserted university clerical pay "is among the lowest in an already low paying office world." For his first example Mr. Ansara stated that Grade I office workers at MIT start at \$80 per week. If intended to represent the pay scales at MIT this statement is misleading. 93% of MIT's office employees are in Grade III, IV of V positions with starting salary ranges, respectively, of \$108-\$124, \$122-\$140 and \$140-\$156. These rates are starting only and average salaries for people in these grades are much higher. These rates are also for a 35 hour work week and competitive with equal or longer work weeks in the Boston area. Of the approximately 1300 people employed in full-time office/clerical positions on the MIT campus none are employed in Grade I.

Mr. Ansara implied that the use of a "merit" salary plan at MIT adversely affects all employees. We continue to believe in merit and to feel that there should be a relationship between performance and compensation. This is not to say that we are oblivious to changes in the cost of living, and such changes influence what the Institute budgets for salary increases each year.

Nevertheless, rapid inflation falls very heavily on colleges and universities because they are not in a position to pass the full increases in their costs on to students and/or research sponsors.

Despite this lack of a direct link between our merit plan and cost of living, the annual wage increases received by office employees at MIT have almost invariably exceeded the annual rise in the Consumer Price Index (CPI) except this year. In April, while the overall increase to office employees averaged nearly 7%, it did not match the extraordinary CPI increase of 10.2% for the preceding 12 months and is the first year in recent times that the average increase has not equalled or exceeded the CPI rate. Because distribution is based on merit, some individuals received more than the average increase while others received less. Additionally, as of July 1, 1974, the pension plan covering office employees became non-contributory adding an additional 3% to take home pay for those who were members of the pension plan. For those employees, the effect was to bring the overall percentage of "increase" to almost 10% and very close to the CPI increase.

Mr. Ansara's article did not mention the application under our merit system of probationary and promotional increases that occur during the year. In the year ending June 30, for example, there were over 200 increases for performance at the completion of an initial four month employment period while over 300 persons were promoted or received interim increases for performance or expanded job responsibilities. In total, over 40% of office/clerical employees received some increase beyond the regular annual merit review.

No assessment of compensation is complete without attention to employee benefits; for example, at MIT the office employee is almost totally insulated against inflation in costs of medical care. Although medical care costs have nearly doubled in the past four years, these costs have been largely absorbed by MIT with the individual office employee paying less than 61 cents per week for coverage under the Blue Cross/Blue Shield Master Medical Plan.

We at MIT recognize a responsibility to find ways of increasing the satisfaction of office work and opportunities for advancement, in clerical and administrative positions and in other lines of work. We have a liberal program for assisting employees with the tuition costs of acquiring new knowledge and skills. As illustrations of the effects, over 20% of those employed at MIT in full-time office/clerical positions have been promoted in the past year; 70 have moved into administrative or professional positions while 190 have moved to a higher grade of office work. This represents a positive effort to provide opportunities to office employees who wish to assume greater responsibility and who find themselves in an extremely tight job market with a host of competitors

> Sincerely, James J. Culliton Assistant to Vice President, Administration and Personnel, and Director of Personnel Services

# Stone, Fingerman Take Fund Positions

coordination of all graduate fellowship and traineeship programs.

Before taking his position in the Graduate School, Mr. Stone served from 1966 to 1970 in the Industrial Liaison Office, first as an industrial liaison officer and later as assistant director of the office.

Mr. Fingerman, who received the BS degree from MIT in 1969, concentrated in mathematics, psychology and education during his undergraduate studies.

He was the recipient in 1969 of the Karl Taylor Compton Award for outstanding leadership as an undergraduate.

He received the MA in college student personnel last July from Michigan State University where he also studied sociology and psychology.

# Lowell School Enrollment Up

(Continued from page 1) professional publications, such as IEEE Reflector.

Also, Dr. Wedlock noted, four new courses have been added this term, to broaden the scope of the School's operation.

New courses this fall are Creative Photography, Fundamentals of Engineering Drawing, Op-Amp

## Seminar Focus: Computing Future

A forecast of the characteristics

Applications, and TV Systems— Principles of Videotape Recording.

The curriculum is designed to meet the needs of technicians who have had some training. Most subjects are taught by MIT people faculty members, staff, or graduate students. The high quality of the teaching has been a major factor in the long-term success of the program.

Students also find the Lowell School's tuition attractive. Tuition is \$25 per credit hour for students whose employers have tuition assistance programs. Those without tuition assistance pay only \$5 per credit hour, with the remainder made up from scholarship funds.



of computing systems through the last half of the 1970's and into the 1980's will be offered by Frederic G. Withington of the Arthur D. Little Co. on Monday, Oct. 21, in the opening lecture of the Information Processing Services Seminar Series.

Withington will give his presentation, "The Future of Computer Technologies," in the West Lounge of the Student Center at 3:30pm. Coffee will be served at 3.

Withington, senior consultant in ADL's Information System Section, is responsible for the company's data processing industry analysis and forecasting activities. He is the author of three books, is a contributing editor to *Datamation* and has written numerous articles. The most recent, "Five Generations of Computers," appeared in the July/ August, 1974, Harvard Business Review. In addition there is a \$5 registration fee for everyone and about half the courses have laboratory fees ranging from \$10 to \$35 to cover cost of expendable materials.

Further information and Bulletins are available from the Lowell Institute School office, Rm. 5-118, x3-4895.

## Yagodkas on TV

Drs. Adam and Maureen Yagodka, MIT co-directors of personnel development, will be guests on the Sonya Hamlin Show, Thursday, Oct. 17, at 9am on WBZ-TV, Ch. 4. Focus of the show this week is working couples. There are plans to videotape the show at MIT for later playback.



Mr. Stone, left and Mr. Fingerman

Two major administrative appointments to the MIT Alumni Fund have been announced by Frederick G. Lehmann, Director of the Alumni Fund and Financial Vice President and Treasurer of the Alumni Association.

Ronald S. Stone, '59, former Assistant Dean and Executive Officer of the MIT Graduate School, has been named Associate Director of the Fund.

Daniel J. Fingerman, '69, former graduate assistant in the Graduate Student Affairs Office at Michigan State University's College of Education, has been named Assistant Director of the Fund.

"In their new positions Mr. Stone and Mr. Fingerman will share in the overall direction of MIT's \$3 million annual Fund, comprised of more than 22,000 donors. The Fund achieves its results through the efforts of more than 3,000 alumni volunteers," Mr. Lehmann said.

Mr. Stone, who has been with the MIT Graduate School since 1970, is a graduate of the Institute. He received the SB in chemistry in 1959, and the MS from the University of Vermont in 1961. He did his postgraduate work at the University of California-Berkeley and in 1966 completed the academic requirements for the PhD.

At the Graduate School he was the Institute staff officer responsible for the administration and From 1969 to 1972 Mr. Fingerman served as a Peace Corps volunteer teacher in Malaysia.

Mr. Stone and his wife, the former Barbara Ann Zamborsky make their home in Framingham. Mr. and Mrs. Fingerman, the former Lynne Tochterman, recently moved to Winchester.

## Ozone Seminar

Professor Mel Ruderman, physics professor at New York University, will discuss "Ozone Depletion Due to Nuclear Explosions" from 4 to 5pm Tuesday, Oct. 22, in the Millikan Room, E53-482, at the New Technologies and International Security Seminar arranged by MIT's Center for International Studies.

Tech Talk, October 16, 1974, Page 3



### Events of Special Interest

A Symposium in Honor of Victor F. Weisskopf\* - Speakers at the symposium, sponsored by the Physics Department, will be: Thurs, Oct 17, 9am: Introduction - James R. Killian, Jr., honorary chairman of the MIT corporation; The Energy Problem - Hans A. Bethe, Cornell University, Nobel Prize in Physics in 1967; Model-Free Views of Deep Inelastic Scattering, Julian S. Schwinger, Harvard University, Nobel Prize in Physics in 1965; Life at Low Reynolds Number – Edward M. Purcell, Harvard University, Nobel Prize in Physics in 1952. Thurs, Oct 17, 2:30pm: A Possible New Form of Matter at High Densities - Tsung Dao Lee, Columbia University, Nobel Prize in Physics in 1957; The World As Quarks, Leptons, and Bosons - Murray Gell-Mann, California Institute of Technology, Nobel Prize in Physics in 1969. Fri, Oct 18, 9am: What Angular Momentum can do to the Nucleus - Ben R. Mottelson, NORDITA, Copenhagen, Denmark; Physics for Mathematicians -Stanislaw M. Ulam, University of Colorado; How Aristotle Discovered DNA - Max Delbruck, California Institute of Technology, Nobel Prize for Medicine in 1969. Fri, Oct 18, 2:30pm: Is negotiated Arms Control Feasible? – Wolfgang J. H. Panofsky, director, Stanford Linear Accelerator; The Third Culture - David Hawkins, University of Colorado, director, Mountain View Center of Environmental Education, Boulder, Colorado. All sessions will be in Kresge.

October 16

October 27

through

Philosophy-Psychology Conference\*\* – Drawing from experts in both fields, the speakers at the conference, sponsored by both departments, are as follows: Thurs, Oct 24, 9:30am: Language and Psychology – Noam Chomsky, Ferrai P. Ward Professor of Modern Languages & Linguistics; George Miller, Rockefeller University; and Patrick Suppes, Stanford University. Thurs, Oct 24, 2:30pm: The Role of Satisfaction in Motivation – David Birch, Richard Brandt and Edward Walker, University of Michigan. Fri, Oct 25, 2:30pm: The Use of Models and Analogies in Psychological Theory – K.D. Irani & Paul Secorn, City University of New York; Jerome Y. Lettvin, MD, biology, electrical engineering. Sat, Oct 26, 9:30am: Intentionality and the Information Processing Approach to Cognition – Daniel C. Dennett, Tufts University; Peter C. Dodwell, Queens College in Canada; Richard Rorty, Princeton. All sessions in Stu Ctr Sala. Info, Dr. Jerry A. Fodor, x3-5765 or Dr. Ned J. Block, x3-2640.

### Seminars and Lectures

#### Wednesday, October 16

Gd, La, and Sm Monochalcogenides\* – P. Wachter, ETH, Zurich, Switzerland, Materials Science Colloquium. 1:30pm, Rm 9-150.

Kinetic Theory II\* – S.H. Chen, nuclear engineering. Nuclear Engineering Applied Radiation Physics Group Seminar. 2pm, Rm 24-307.

Interaction Between Scales in the Problem of Wave Generation by Wind\* – Mihir Sen, G. Aero/Astro Doctoral Seminar. 3pm, Rm 33-206.

Industrial Microbiology\* – Arnold Demain, nutrition & food science. Interdepartmental Faculty-Student Exchange Program Seminar. 3:30pm, Rm 4-149.

The Oldest Rocks – Dr. Stephen Moorbath, geology and minerology, Oxford University. Earth & Planetary Sciences Colloquium. 4pm, Rm 54-425. Tea 3:30pm, Rm 54-923.

#### Thursday, October 17

Recent Developments in the Kinetics of Coagulation\* – J. Th. G. Overbeek, visiting professor, chemical engineering. Chemical Engineering Seminar. 10am, Rm 12-150.

Predictive Models for Road Inventory Systems\* – Gdalyah Wiseman, civil engineering, Israel Institute of Technology. Civil Engineering Seminar. 2:30pm, Rm 1-146.

Organic Rankine Cycles for Power Generation from Low Temperature Heat Sources\* – J. Davis, Thermo Electron Corporation. Thermodynamics and Fluid Mechanics Seminar. 4pm, Rm 3-343. Science Museum. Dinner \$6, \$3 for students, lecture free. Pay at door.

#### Friday, October 18

Lighter Than Air Transportation: Fact or Fiction – Joseph Vittek, aero/astro. Center for Transportation Studies Seminar. 12:45pm, Stu Ctr Mezzanine Lge. Buffet lunch 12n; price \$1.

Liquid Phase Reforming of Organics in Wastewater\* – S. Amin, G. Chemical Engineering Doctoral Seminar. 2pm, Rm 10-105.

Radiative Measurement of Temperature Profiles in Flames\* – I. Farag, G. Chemical Engineering Doctoral Seminar. 3pm, Rm 10-105.

Physical Aspects of Clinical Nuclear Medicine<sup>\*</sup> – S. James Adelstein, MD, director, Joint Program in Nuclear Medicine, Peter Bent Brigham Hospital & Children's Hospital Medical Center. Nuclear Engineering Biomedical Applications of Radiation Seminar. 3:45pm, Rm NW12-222. Coffee 3:30pm.

Berkeley, his Door, and the *Philosophes*<sup>\*</sup> – Otis Fellows, French literature, Columbia University. Foreign Literature & Linguistics Lecture. 4pm, Rm 4-231.

#### Monday, October 21

Air Pollution Modeling's Role in the Change of Massachusetts Bureau of Air Quality Control Regulation 5.1.3 and a Refinement of the Harvard Bearg-Miller Air Quality Prediction Model – Mark S. Bendersky, G. Environmental Engineering Degree Seminar, Civil Engineering. 3pm, Rm 1-236.

The Future of Computer Technologies\* – Frederic G. Withington, Arthur D. Little Co. Information Processing Services Seminar Series. 3:30pm, Stu Ctr West Lge. Coffee 3pm.

Modeling of Fast Reactor Fuel Element Behavior<sup>\*</sup> – Dr. Richard Weeks, Argonne National Laboratory. ANS Seminar. 3:30pm, Rm 9-150. Coffee 3pm.

Open and Closed Loop Solutions in Differential Games<sup>\*</sup> – Nils R. Sandell, electrical engineering. Electrical Engineering Decision and Control Sciences Group Seminar. 4pm, Rm 39-400. Note: Change of date from Mon, Oct 14.

Small Scale Development of Water Storage in Sahel-Sudano Region of Africa\*\* – Kenneth Strzepek, G; Dr. Hans Guggenheim, research affiliate, architecture. Civil Engineering Water Resources and Hydrodynamics Seminar. 4pm, Rm 48-316. Coffee 3:30pm, Rm 48-410.

Phenol-Degrading Enzymes from Yeast – Dr. Halina Neujahr, pure & applied biochemistry, Royal Institute of Technology, Stockholm, Sweden. Nutrition & Food Science Microbiology & Biochemical Engineering Seminar. 4pm, Rm 16-310.

An Identification Problem – Herman Chernoff, mathematics. Applied Mathematics Colloquium. 4pm, Rm 2-338. Coffee 3:30pm, Rm 2-349.

Electromechanics of Charged Polyelectrolyte Membranes – Alan J. Grodzinsky, electrical engineering. MIT-Harvard Health Sciences & Technology Biomaterials Seminar. 4:30pm, Rm 37-212. Coffee 4pm.

#### Tuesday, October 22

Protection and Sensitization of Suspensions by Absorbed Macromolecules\* – J. Th. G. Overbeek, visiting professor, chemical engineering. Chemical Engineering Seminar. 10am, Rm 12-150.

A Quasilinear Theory of Dissipative Trapped Particle Instabilities Including Temperature Gradient and Finite Larmor Radius Considerations\* – D. Ehst, G. Nuclear Engineering Doctoral Seminar. 12n, Rm 38-166.

Experimental Resonance Filters for Optical Scatter Channel Signals\* – D. Emmons, Lincoln Lab. RLE Seminar. 2pm, Rm 36-428.

Aero/Astro General Seminar\* - Speaker to be announced. 4pm, Rm 35-225. Coffee 3:30pm, Rm 33-411.

Relationships Between Oceanic Ridge and Off-Ridge Volcanic Rocks – W. Ian Ridley, Lamont-Doherty Geological Observatory, Columbia University. Earth & Planetary Sciences Seminar. 4pm, Rm 54-100. Tea 3:30pm, Rm 54-923.

The Impact of Minimcomputers on Communications\* – Paul Baran, Cabledata Associates; C. Gordon Bell, Digital Equipment Corp; R. J. Cypser, IBM; Lee R. Talbert, Packet Communications, Inc. Communications Policy Seminar. 4pm, Rm 9-450.

Fluorescent Probes of Chromosome Structure, Replication, and Repair – Dr. Samuel A. Latt, Children's Hospital Medical Center. Biology Colloquium. 4:30pm, Rm 2-390. Coffee 4pm, vestibule 5th

#### Thursday, October 24

Determination of Micellar Weight of Short Chain Lecithin Homologues\* – J. Th. G. Overbeek, visiting professor, chemical engineering. Chemical Engineering Seminar. 10am, Rm 12-150.

**Tactile Communication of Speech\*** – Jacob H. Kirman, psychology Queens College, City University of New York. Harvard-MIT Rehabilitation Engineering Center Seminar. 4pm, Rm 3-133.

Nature's Sonar: A Case Study of the Greater Mustache Bat\* – Alvig Nivick, biology, Yale University. Interdepartmental Acoustic Seminar. 4pm, Rm 5-234. Coffee 3:30pm, Rm 1-114.

Fluid Mechanics of Arterio-Venous Shunt for Kidney Dialysis\* – U Dinnar, Technion, Israel Institute of Technology. Thermodynamic and Fluid Mechanics Seminar. 4pm, Rm 3-343.

Scanning Electron Microscopy and Freeze Fracturing Potential and Limitations – Don W. Fawcett, MD, Hersey Professor of Anatomy Harvard Medical School. Nutrition & Food Science Seminar 4:15pm, Rm 54-100. Coffee 4pm.

Observations of Showers Inside Nuclear Matter: When is a Partic Born? – Wit Busza, physics. Physics Colloquium. 4:15pm, Rr 26-100. Refreshments 3:45pm, Rm 26-110.

Women in Academe: Why Should it Hurt to be a Woman in Labor<sup>44</sup> – Bernice Sandler, executive associate, Association of America Colleges; director, project on the status and education of women AWS, Women in Science & Engineering (WISE) Seminar. 8pm, St Ctr Mezzanine Lge.

#### Friday, October 25

Size, Shape and Size Distribution of Micelles of Short Chain Lecithin Homologues\* – J. Th. G. Overbeek, visiting professor chemical engineering. Chemical Engineering Seminar. 2pm, Rt 12-150.

Preliminary Results of Laboratory and Computer Simulations a Atmospheric Processes\* – Dr. Richard L. Pfeffer, meteorolog director of Geophysical Fluid Dynamics Institute, Florida Stat University Meteorology Seminar. 4pm, Rm 54-100. Tea 3-3:30pt

## **Community Meetings**

Preprofessional Meetings – Thurs, Oct 17 – Syracuse Universit College of Law: Dean Richard Buckley, interviews 9am-12n, grou M meeting 12n, Rm 10-236. Yale University School of Medicine TT Thomas L. Lentz, chairman, committee on admissions, grou meeting 4pm, Rm 3-133. Fri, Oct 18 – Lewis & Clark College Tt Northwestern School of Law; Ann Kendrick, director of program pr interviews 9am-12n. Rutgers University School of Law: Professo Stephen Presser, interviews 2-5pm. Mon, Oct 21 – University of Tt Michigan Medical School: Dr. Robert A. Green, interviews. Tue 20 Oct 22 – University of Pennsylvania School of Law: Dean Arnol Miller, group meeting 5:30pm, Rm 3-133. Wed, Oct 23 – Tt Columbia University School of Law: John F. Kullberg, director of admissions, interviews 9am-12n, 1-3pm. Make appointments for a interviews at Preprofessional Advising & Education office, R Tt 10-186, x3-4158.

An Introduction to Boston<sup>\*\*</sup> – Technology Wives Organization meeting, including a discussion of Boston, its history and him f about shopping, transportation, etc. Speaker: Margaret Scahil director of visitor development, Boston Chamber of Commerce 8pm, Stu Ctr Mezzanine Lge. Refreshments. Info, Ruth Stump 494-8365. Student wives especially welcome.

MIT Club of Boston Dinner Meeting – B.F. Skinner, Edgar Pier F Professor of Psychology, emeritus, at Harvard; world-renowne behaviorist and author. Wed, Oct 23, cocktails 6pm, dinner 7pm Faculty Club. Cash bar for cocktails, dinner \$6.75/person.

Foreign Students – You are invited to attend the Internation Student Day Ceremonies in Boston. Thurs, Oct 24, 10:30an Gardner Auditorium, State House. Call Ellen Lacroix, Foreig Student office, x3-3795.

The Dirk Struik 80th Birthday Celebration\* – Members of the community are invited to a dinner/reception to honor Dirk Struit professor of mathematics, emeritus. Sun, Oct 27, 4pm, Stu Ctr Sal Advance reservations are necessary. Contact E.O. Fehlhaber, 10 Longwood Ave, Brookline, MA, 02146, enclosing \$8/ticket.

Women's Forum\*\* – Meetings, Mon, 12n-1pm, Rm 10-105. Wi meet Tues following Mon holidays.

Wives Discussion Group – Wed, 2:15pm, Medical conference m 3rd fl. Discussion leaders: Myra Rodriques, social worker, x3-1684 Charlotte Schwartz, sociologist, x3-2916. Babysitting servic available.

AIAA\*\* – Weekly meetings of the American Institute Aeronautics & Astronautics, Wed, 3pm, Rm 33-222.

Water Resources Management and Hydraulic Research in Romania\* – Dr. Ernest Razvan, Research Institute of Water Resources Engineering, Bucharest, Romania. Civil Engineering Water Resources and Hydrodynamics Seminar. 4pm, Rm 48-316. Coffee 3:30pm, Rm 48-410.

Water Requirements for Coal Gasification Processes\* – J. Shen, NSF trainee, mechanical engineering. Thermodynamics and Fluid Mechanics Seminar. 4pm, Rm 3-343. Coffee.

Peaceful Nuclear Explosions and the Moscow Agreements\* – W.H.K. Panofsky, director, Stanford Linear Accelerator. Joint MIT-Harvard Arms Control & Nuclear Engineering Seminar. 4:30pm, Rm 4-270.

Access?\* – Melvin H. King, associate director, Community Fellows Program; State Representative. Respondents: Bernice J. Miller, associate director, Center for Urban Studies, Harvard Graduate School of Education; Stephen L. Hussein, director of Minority Audience Poll, originator of Black News program on TV. Technology & Culture Seminar. 5:15pm, Rm 9-150.

Racing Yacht Design and the America's Cup\*\* - Halsey Herreshoff, yacht designer, member of "Courageous" crew. ASME Lecture. Cocktails 6pm, dinner 7pm, speaker 8pm; Morse Auditorium,

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fl, Bldg 56.

US Policy in the Middle East\* – John Roach, Fletcher School of Law & Diplomacy. Israeli-American Forum. 8pm, Stu Ctr Mezzanine Lge.

#### Wednesday, October 23

Kinetic Theory Analysis of Thermal Fluctuations in Liquids<sup>\*</sup> – Paulo Furtado, G. Nuclear Engineering Doctoral Seminar. 2pm, Rm 24-307.

Foam Stability; Thinning and Breaking of Soap Films\* – J. Th. G. Overbeek, visiting professor. Chemical Engineering Seminar. 3pm, Rm 12-150.

Space-Time Reactor Kinetics: The Alternating Checkerboard Method\* – J.S. Hendricks, G. Nuclear Engineering Doctoral Seminar. 3pm, Rm NW12-222.

**Molecule Microscopy\*** – James Weaver, physics. Interdepartmental Faculty-Student Exchange Program Seminar. 3:30pm, Rm 4-149.

Fuel Mechanical Integrity Considerations in Light Water Reactor Fuel Management\* - S. Schultz, G. Nuclear Engineering Doctoral Seminar. 4pm, Rm NW12-222.

Particle Theory\* - Francis Low, Karl Taylor Compton Professor of Physics. Undergraduate Physics Colloquium. 4:15pm, Rm 6-120. Social hour after, Rm 6-209.

**Physics Department Social Hour\*\*** – For undergraduate physic students and faculty. Wed, 5pm (following Undergraduate Physic Colloquium), Rm 6-209.

Barker Library Orientation Tours – Wed, Oct 16, 10:15am & Thur M Oct 17, 3:15pm; beginning in library's 4th fl conference/study <sup>fl</sup> (enter Rm 10-500, follow signs).

## **MIT Club Notes and Meetings**

ASA Meeting\* – Discussion of proposed bulk mailing permit, L Activities Midway. Sun, Oct 20, 3pm, Stu Ctr West Lge. x3-2696.

**Bridge Club\*** – ACBL Duplicate Bridge. Open Matchpoint p<sup>al</sup> Thurs, 7-10:30pm; non-masters (less than 20 master points) Fr 10pm-12m; all Stu Ctr Rm 473. Jeff, 864-5571.

Beginning-Bridge Lessons<sup>\*</sup> – Free lessons conducted by the <sup>MI</sup> Bridge Club. Thurs, Oct 17-Nov 21, 5:15-6pm, Stu Ctr Rm 473. <sup>N</sup> previous knowledge will be assumed. Advance registration <sup>n</sup> necessary. Jeff, 864-5571.

MIT/DL Bridge Club\*\* – ACBL Duplicate Bridge. Tues, 6pm. S Ctr Rm 473. Jeff, 864-5571.

Chess Club\*\* - Meeting Sat, 12n-5pm, Stu Ctr Rm 407.

Chinese Choral Society\*\* - Singing Sun, 3pm, Stu Ctr Rm 473.

Goju Karate Club\* - Beginners enter class first week of each month. Classes Mon, Wed, 7-9pm; Fri, 7-10pm, Stu Ctr Rm 491. ecithin Terry Gibbs, 524-1251; Shawn, x3-2018.

Hobby Shop\*\* - Mon-Fri, 10am-6pm, Rm W31-031. Fees: \$10/term for students, \$15/term for community. Info, x3-4343. olog

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rd-MIT Israeli Student Club - Lectures Tues, 8pm, Stu Ctr Mezzanine Lge.

MIT Karate Club\*\* - Shotokan style. Classes Mon, Wed, 8-10pm, Alvin duPont Wrestling Rm. Beginners welcome.

MIT Kung Fu Club\*\* - Instruction in the art of Chinese boxing, Northern Praying Mantis style. Tues, Thurs, 7pm, Stu Ctr Rm 407.

namic LSC\*\*\* - Meeting to discuss lecture appropriations, nominations for new officers. Mon, Oct 21, 8pm, Stu Ctr Mezzanine Lge. Send proxy to Stu Ctr Rm 457 if can't attend.

atom MIT Numismatic Society - Interested in forming a Numismatic minat Society? Call John Sallay, 494-9820.

MITV News - Fri, Bldg 7 Lobby. If you would like to work on it or artic know of news that should receive attention, call Dave Neuberger, n, Rr 247-8355, or John Krout, 494-9820. Don't forget to watch the show!

abor\* MIT Outing Club\* - Mon & Thurs, 5-6pm, Stu Ctr Rm 461.

MIT Schola Cantorum\*\* - Rehearsals Tues, 7:30pm, Kresge. ome

m, S Science Fiction Society\* – World's largest SF lending library, now located in Stu Ctr Rm 421 & 423. Open evgs, irregular hours, call ahead to x9144 Dorm. Society meets Fri, 5pm, Rm 1-236.

Chai MIT Scuba Club - Compressor hours Mon & Fri, 4-6pm, Alumni fesso Pool.

Strategic Games Society\* - Offers opponents and discounts on merchandise to members plus gaming and periodical library. Sat, 1pm-1am, Walker Rm 318. Info, Kevin Slimak, 491-8568. Robert ons rology Sacks, 494-8889. Sta

Student Homophile League\* – Meeting Sun, Oct 20, 4pm, Rm 1-132. Pot Luck Supper. Info, talk, help in coming out, Hotline: :30 pn x3-5440. Come on out, the water's fine!

Student Information Processing Board\* - Freshman especially welcome. Mon, 7:30pm, Rm 39-200. versi

MIT Tae Kwon Do Club\*\* - Beginner and advanced classes. Tues, grou dicin Thurs, 5:30-7pm, duPont T-Club lge.

ollege Tech Engineering News\* - Office hours for MIT's undergraduate professional journal: 12n-1pm, Stu Ctr Rm 453, x3-2989. gran ofes

Tech Model Railroad Club\*\* - Business meeting. Sat, 4pm, Rm sity ( Tu 20E-210.

Technique\*\* - MIT's yearbook welcomes writers, photographers 23 ctor and hackers. Sat, Stu Ctr Rm 451. Info, x3-2980.

Tiddlywinks Association\*\* - Meetings Wed, 8-11:30pm, Stu Ctr e, R Rm 473.

Volleyball Club\*\* - High level instructional program designed to izatio l hi orm intercollegiate and AAU teams in November. Sun, 24pm court Scahi 3, duPont Armory. mer

MIT Wheelmen\* – Meetings Tues, 7:30pm, Rm 1-203.

White Water Club\*\* - Pool sessions. Tues, Oct 22, 8-10pm, Alumni Pier Pool.

r 7pm Zero Population Growth\* - Meeting 2nd Wed of each month, 7:30pm, bsmnt Stu Ctr. Info, x3-7922, x0433 Dorm.

## Wellesley Events

Doing - Not Education\* - John Holt, author of How Children Fail, advoacte of open schools and children's rights. Wellesley College Forum. Thurs, Oct 24, 8pm, 112 Pendleton East, Wellesley. Free.

Photographic Works by Man Ray\* - From the collection of Arnold H. Crane. Thru Sun, Nov 3, main gallery of Jewett Arts Center, on campus. Hours: Mon-Fri, 8:30am-5pm; Sat, 8:30am-12n, 1-5pm; Sun, 2-5 pm.

## Social Events

L<sup>2</sup>S (Lincoln Lab Singles)\*\* - Lunchtime "happy hour" Wed, Oct 23, NCO Clum on Hamscom Field. Halloween Party Fri, Oct 25. Wear a costume or come as you are. Snacks, games, dancing. Info: Karen, x5418 Linc or Joe, x7124 Linc.

24 Hour Coffeehouse\* - Enjoy relaxing conversation, piano

The Green Warrior: Petite Wife\* - Chinese Student Club film with English subtitles. Sun, Oct 20, 1:30pm, Kresge. Admission \$2, \$1 members.

One Day in the Life of Ivan Denisovitch - LSC. Sun, Oct 20, 3 & 7pm, Rm 10-250. Admission 50 cents.

Bandhe Haath\* – Sangam. Indian movie with English subtitles. Sun, Oct 20, 3:30pm, Rm 26-100. Admission 50 cents with ID. Info: Warsi, x9835 Dorm. Refreshments.

Pinpoint for Science: Apollo 12 - AIAA Space Exploration film series. Tues, Oct 22, 12n & 1pm, Rm 3-133.

Road to Life\* - Film Section. Tues, Oct 22, 7pm, Rm E21-010. Free.

Earth\* - Humanities Film. Wed, Oct 23, 7pm, Rm 14N-0615. Free.

Ten Days That Shook the World\* - Film Section. Wed, Oct 23, 7pm, Rm E21-010. Free.

Scars on the Surface\* - Environmental film series. Thurs, Oct 24, 5pm, Eng Lib Rm 10-500. Free, coffee.

Scars on the Surface\* - Environmental film series. Fri, Oct 25, 12n, Eng Lib Rm 10-500. Free, coffee.

Between Time and Timbuktu\*\* - LSC. Fri, Oct 25, 7 & 9:30pm, Rm 26-100. Admission 50 cents, ID required.

The Given Word (Duarte) - Film Society. Fri, Oct 25, 7:30 & 9:30pm, Rm 6-120. Admission \$1.

The Point\*\* - Midnite Movie Series. Fri, Oct 25, 12m, Sala. Free, ID required. Bring your own blanket.

A Man for All Seasons\*\* - LSC. Sat, Oct 26, 7 & 10pm, Rm 26-100. Admission 50 cents, ID required.

The Producers - LSC. Sun, Oct 27, 3 & 7pm, Rm 10-250. Admission 50 cents.

### Music

Chamber Ensemble\* - Music by C.P.E. Bach, Bonelli, Gabrieli, Schein, Holborne, Hovaness and Adler. Wed, Oct 16, 12n, Bldg 7 Lobby.

Chamber Music Society Concert\* - Marcus Thompson, director. Wed, Oct 16, 5:15pm, Music Library. Free.

Dimov String Quartet Concert\* - With John Buttrick, pianist. Program includes works by Haydn, Bartok, Brahms. Chamber Music Series. Wed, Oct 16, 8pm, Kresge. Free.

Upstairs in the Tent\* - Jack White, penneywhistle, recitations and Irish songs: Allen Stowell, fiddle, blue grass, old time & Irish music. Wed, Oct 23, 12n, Bldg 7 Lobby.

Chamber Players Concert\* - Marcus Thompson, director. Program of Bach, Mozart, and Spohr. Wed, Oct 23, 8pm, Kresge. Free.

The Willow Band\* - Rock & jazz. Thurs, Oct 24, 12n, Bldg 7 Lobby.

Noon Hour Concert\* - Sandra Stuart, soprano; accompanied by John Cook, harpsichord. Thurs, Oct 24, 12n, Chapel. .

Piano Recital\* - John Buttrick pianist, music section. Program will include works by Brahms, Chopin amd Liszt. Sun, Oct 27, 4pm, Kresge. Free.

Veena Recital\* - By R. K. Suryanarayanan. Classical instrumental recital in South Indian sytle, sponsored by Sangam. Sun, Oct 27, 7:30pm, Kresge. Admission \$3; \$2 MIT students. Info, x9835 Dorm or 492-4479. Refreshments.

### Theatre and Shows

exhibit. Thru Mon, Oct 21, Rm 14S-100.

An Evening of One-Act Plays\* - The White Whore and the Bit Player, by Tom Eyen; The Apollo of Bellac, by Jean Giraudoux. Fri, Oct 18 & Sat, Oct 19, 8:30pm, Kresge Little Theatre. Free.

A Streetcar Named Desire\* - By Tennessee Williams. MIT Community Players. Fri-Sat, Oct 25-26 & Wed-Sun, Oct 30-Nov 2; 8pm, Kresge. Admission: \$2.75. Reservations, x3-4720.

## Exhibitions

Senior House Arts & Crafts Fair\*\* - Sat, Oct 19, 12:30pm, Senior House courty ard. Hot Cider. Some works will be for sale.

Skating Demonstration\* - Figure and roller skating demonstrated by Barbara Ann Wilson, undergraduate, Tues, Oct 22, 12n, Bldg 7 Lobby. Victor F. Weisskopf: His Impact in Publications\* - Science Library

Charles River Lower Basin. Wednesday, October 23 - Water Polo. Harvard, 6:30, Alumni Pool. Saturday, October 26 -- V Soccer. Springfield, 2pm, Briggs Field. Saturday, October 26 & Sunday October 27 - V Sailing, Staake Trophy, 9:30am, Charles River Lower Basin.

### **Religious Services and Activities**

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

Baha'i Discussion Group\* - Prayers, reading and discussion. Thurs, Oct 17, 7:30pm, Rm 8-105. Refreshments. Dale, 734-0648.

Campus Crusade for Christ/College Life\* - Family time, singing, prayer, teaching from God's word. Fri, 7:30pm, Rm 37-252.

Christian Science Organization\* - Weekly meetings, including testimonies of healing. Tues, 7:15pm, Rm 8-314.

Eastgate Bible Study\* - Discussing Book of John, Thurs, 8pm, Eastgate Apt 24C. Info, Ed Fielding, x3-3638.

Hillel Services\* - Fri: Traditional 7pm, Rm 16-134. non-Traditional 8:30pm, Chapel. Sat: Traditional 9am, Chapel. Mon-Fri, Minyan 7:30am, Rm 7-102.

MIT Islamic Society\* - Congregational prayers Fri, 2:15pm, Kresge rehearsal rm B; discussion session Sat, 4:30-6:30pm, International Stu Lge (2nd fl Walker); Quaranic Tasfeer session Wed, 8-10pm, Rm 14N-313.

Roman Catholic Mass\* - Sun, 9:15am, 12:15pm, & 5:15pm; Tues & Thurs, 5:05pm; Fri, 12:05pm; Chapel.

United Christian Fellowship\* - Meet for teaching, singing, sharing and prayer with the Lord. Tues, 6pm, Rm 8-105. Preceeded by dinner at Walker, 5pm.

United Christian Worship Service\* - Sun, 10:45am, Chapel.

United Christian Fellowship\* - Sunday school and nursery for infants and children during United Christian Worship Service. Sun, 10:45-12n, Stu Ctr Mezzanine Lge.

Vedanta Society\* - Services Fri, 5:15pm, Chapel. Swami Sarvagatananda will give a discourse on Bhagavat Gita.

Westgate Bible Study\* - Wed, 8pm, Westgate Apt 1210. Info, 494-8778.

### Announcements

Reminder to Graduate Students - Nomination petitions for the upcoming Graduate Student Council election are due by 5pm Tues, Oct 22. They may be picked up at GSC office, Rm 50-110. Info, x3-2195.

Fourth Year Students - Fri, Oct 25 is the last day for 4th year students to specify an elective for pass-fail grading.

Notice- Students who anticipate applying to MIT for graduate work are encouraged to complete their applications by November 1. In particular, this applies to candidates for Electrical Engineering.

Hillel Classes\* - Classes are now being scheduled. Info, x3-2982 or x3-2987.

BSO Subscription Tickets - Tickets for excellent seats which have been turned in for resale are available at reduced rates. TCA office, Stu Ctr Rm 450, 11am-3pm, x3-4885.

### Placement Interviews

The following companies will be interviewing Wed, Oct 16-Fri, Oct 25. Those interested may sign up in the Career Planning and Placement Office Mon-Fri, 9am-3pm, Rm 10-140, x3-4733.

Wednesday, October 16 - NYU Graduate School of Business Administration; Union Carbide Corp. PhD.

Thursday, October 17 - Union Carbide Corp, PhD; Cities Service Co; Northwestern Univ Graduate School of Management; Univ of Pennsylvania, Wharton Graduate Div; USC Graduate School of Business; Hughes Aircraft Co; Texaco, Inc; Union Carbide Corp, SB, SM.

Friday, October 18 - Cities Service Co; Hughes Aircraft Co; Union Carbide Corp, SB, SM; Atomic Energy Commission, Div of Naval Reactors; Univ of Chicago Graduate School of Business; Gulf Research & Development Co; Columbia Univ Graduate School of Business.

Monday, October 21 - Arabian American Oil Co; Argonne National Lab; Atomic Energy Commission-Regulation; Dartmouth College-Amos Tuck School of Business; The B.F. Goodrich Co; Northeastern Univ Graduate School of Business Administration.

Tuesday, October 22 - Argonne National Lab; Atlantic Richfield Co; Battelle-Columbus Labs; Continental Oil Co; Eastman Kodak Co; Gibbs & Hill, Inc; Interdata, Inc; The Lummus Co; Lutron: Rohm and Haas Co; Battelle Northwest Labs; Boston Univ, Master of Business Admin Degree Program.

playing, games, inexpensive food, candy & drinks. Open 24 hours per day, 7 days per week, Stu Ctr 2nd fl lge. hys hvs

#### Movies Thu

Three Penny Opera\* - Film Section. Wed, Oct 16, 7pm, Rm E21-010. Free.

Six Fathoms Deep\* - Environmental film series. Thurs, Oct 17, 5pm, Eng Lib Rm 10-500. Free, coffee.

- Wild Child\* Humanities Film. Thurs, Oct 17, 7pm, Rm 14N-0615. Free.
- Six Fathoms Deep\* Environmental film series. Fri, Oct 18, 12n, Eng Lib Rm 10-500. Free, coffee.

Zardoz\*\* - LSC. Fri, Oct 18, 7 & 9:30pm, Rm 26-100. Admission 50 cents, ID required.

land in Anguish (Rocha) - Film Society. Fri, Oct 18, 7:30 & 30pm, Rm 6-120. Admission \$1.

Bananas\*\* – Midnite Movie Series. Fri, Oct 18, 12m, Sala. Free, ID equired. Bring your own blanket.

MacBeth\*\* - LSC. Sat, Oct 19, 7 & 10pm, Rm 26-100. Admission 50 cents, ID required.

Photography Exhibition\* - Photographs by members of the faculty at the Creative Photography Gallery, including Jonathan Green,

Peter Laytim, Tod Papageorge and Melissa Shook. Through Fri, Oct 25, Creative Photography Gallery.

Landscapes\* - Paintings by Dr. Celestino Alvarez, research associate on leave of absence from the Department of Nutrition & Food Science. Weekdays, Fri, Oct 4-Thurs, Oct 31, 9am-11pm, Faculty Club, Bldg E52. Art will be for sale.

The Eye of Paris By Brassai\* - Photographs by the renowned Hungarian artist. Sat, Oct 19-Sat, Nov 16, Hayden Gallery. Hours: daily 10am-4pm, Tues evg, 6-9pm. Free.

Alper Exhibit\* - Selection of drawings by Boston artist Natalie Alper. Sat, Oct 19-Sat, Nov 16, Hayden Corridor Gallery.

## Athletics

Table Tennis Team\*\* - Organizational meeting Fri, Oct 25, 6pm, Stu Ctr Rm 407.

Home Schedule\* - Wednesday, October 16 - V Soccer. Brandeis, 3:30pm, Briggs Field. Saturday, October 19 - V Soccer. Lowell Tech, 10am, Briggs Field. JV/F Soccer. Emerson, 10am, Briggs Field. Sunday, October 20 - V Sailing. Open Invitational, 10am,

Wednesday, October 23 - Lutron; Battelle-Columbus Labs; Battelle Northwest Labs; Boston Univ, Master of Business Admin Degree Program; Bethlehem Steel Corp; Colgate-Palmolive Co, R&D;ETL, Inc; General Atomic Co; Monolithic Memories, Inc; Philco-Ford Communications Systems Div; Rockwell International; Stanford Univ, Graduate School of Business.

Thursday, October 24 - General Atomic Co; Monolithic Memories, Inc; Rockwell International; Carnegie-Mellon Univ; Corning Glass Works; The Mitre Corp; Univ of Rochester, Graduate School of Management; Hewlett-Packard Co; Xerox Corp.

Friday, October 25 - Corning Glass Works; The Mitre Corp; Emery Industries, Inc; Engelhard Minerals and Chemicals Corp/Engelhard Minerals and Chemicals Div; GTE Sylvania Inc; General Atronics Corp; SofTech, Inc.

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

Send notices for October 23 through November 3 to the Calendar Editor, Room 5-111, Ext. 3-3279, before noon Friday, October 18.

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CLASSIFIED ADS

Ads are limited to one per person per issue and may not be repeated in successive issues. All ads must be accompanied by full name and Institute extension. Only Institute extensions may be listed. Members of the community who have no extensions may submit ads by coming in person to the Tech Talk office, Room 5-111, and presenting Institute identification. Ads may be telephoned to Ext. 3-3270 or mailed to room 5-105. Please submit all ads before noon, Friday, October 18.

### For Sale, Etc.

Man Underwd office typwrtr, old but exc cond, nds sm adjust, \$22; m 26" old sgl spd bike, nw tire & tube, wks fine, \$10; (2) 6.00x15 VW tires, no rims, + snow, \$4/ea. Erica, x3-7121.

Used dbl hung wndws, 4, 32<sup>1</sup>/<sub>4</sub>x52<sup>1</sup>/<sub>2</sub>", best. Mickie, x7691 Linc.

Car am radio, \$5. x8454 Dorm.

Hyde hcky skates, sz 2, \$7; goalie catch glove, gd for 8 or 9 yr old, \$4. Bill, x8-3546 Draper.

Maxwell UD-35-7, \$5/reel, \$45/case (10); Dyna stereo 120 pwr amp, fac assembled, \$120; KLH 40, series 2 tape deck, \$150; Bld-a-Stereo pwr amp, 45 w/ch RMS, \$40. George Doerre, x3-3161, lve msg.

RCA 21" color port SS XL-100 TV, yr old, nw \$539, \$350. x8-4415 Draper.

Used VW 5.60x15 snows, \$20/pr. Dave, x3-2223.

B nw fbrglas skis: K2 Holiday, Hart Camaro, 210 cm, \$40/pr. x8454 Dorm

Pr ww stud snows, G78x15, balanced on whis for GM cars; f dress coat, blk, sz 10, lk nw. Larry, x3-4749.

Lange flow bckl boots, sz 8, \$40. x3-7023.

Wstghse avacado blt-in 2 cyc dishwash, 4 yrs, hrdly used, immaculate cond, \$75. Harvey, x8-2870 Draper.

Washer, \$20. Dan, x8-1438 Draper, morn.

Dbl bed matt, box spr & frame, gd cond, \$60. Fred, x5567 Linc.

Bike saddle bskts, 2, lk nw, \$5 or best. Call, 247-8048.

Whrlpool 5 yr old washer, runs well, \$35. x8-3844 Draper.

Mason jars w/lids, 3-4 dox, \$7.50/doz; pr 7.00x16 Delta deep trk snows, mtd Chevy pick-up split rims, 8 lugs, 100 mi. Don, x8-3333 Draper.

Pr Sears snows, F78x14, Ply/Dodge rims, 3 K mi, \$40. E. Nesman, x181-56-141 Haystack.

B Bauer Hcky skates lk nw, \$6; Pendleton f suits: brn/check \$15, grn \$20; Art Shade of Needham lampshade, nw, was \$20, \$10. Gundersen, x3-6085.

Sony CF 550A amfm stereo cassette rcdr, incl mics, tapes, sev sets rech batts, ask \$150. Andy, x9328 Dorm, lve msg. File cab, stl 4 drwr, locks, \$40; 2 pr kid XC skis, Anses, 160 cm, pin bndgs, lk nw, \$25/ea. Aldrich, x3-5360.

Qn sz box spr, \$15 or best. Joan, x3-6229.

Raleigh sport 3 spd m bike, exc cond, almost nw, \$70. x3-7411.

Stl 14" shlf brkts, \$.75/ea or 10/\$7; B scale, not v accurate, \$2; Sears twn elec blnkt, works fine, \$6; "plastic peanuts" for packing objects, 1 bag, free. Helen, x3-7690.

Pr 6.95x14 Dunlop stud snows, mtd Pontiac GTO rims, \$25; 19" RCA port, gd cond, \$20. x3-7235.

Wlnt china cab, 4' w, 6' hi, \$75; mpl K set, 4 chrs, \$65. Call, 696-3750.

Dbl bed & frame, \$40. John, x3-1836.

Stl doors, 2, 3'x7'; 2 alum comb doors, 3'x6'8"; electronic organ. Chuck, x8-3360 Draper.

Bomar MX100 calc, 20 fnctns, memory, degrees-radians, ac charger, 6 wks, perf cond, \$99. Richard, x8653 Dorm.

Kowa 35 mm SLR camera, \$37. Call, 494-0368.

Aria classical guitar, b nw, w/case, \$68. x9212 Dorm, evgs.

Gas space htrs, 2, v gd cond, prev used to ht 4 lg rms, ask \$100/pr. Call, 567-3244. Sony TTS-3000 trntbl, arm, base &

dust cvr; Shure V-15-II crtrdg; La Fuma expandable lg rucksack w/leath bttm. David, x3-4157.

Stereo: Olympic sys incl recr w/8 trk tape crtrdg, twn spkrs, trntbl, exc cond, \$100. x8245 Dorm.

Polaroid SX-70 camera, 3 mos, incl leath case, close-up lens, tripod, remote shutter, other acces, cost \$180, best. Bill, 868-8895.

Argus C3 35 mm w/case, self-timer, set fltrs, flash attach, bulbs, \$25. Anne, x3-6104.

Sofa, \$20; armchr, \$10; VW covered top carrier, \$15; fertilizer sprder, \$10; elec fl polisher, \$15; typwrtr, \$5. Jane K, x7195 Linc.

Wd cable spool ends, 2, usable as rough tbl tops, 1¾" thick, 44" diam \$8/ea. Tony, x3-5717.

BR furn: 5 drwr dresser, nitestd, full sz hdbrd, 2 yrs, exc cond; grn rug; iron; nego. Call, 924-8395.

Lionel O-gauge 6-8-6 steam turbine 671; Amer flyer 350 & 293; A-1 cond compl w/track, auto switches, XFMR. Alice, x376 Linc.

Mtd snows for Amer Mtrs Hornet or equiv rims, G78x14, 4 ply poly, \$40/pr. Al, x3-5620.

Authentic handmade Navajo jewelry, genuine turquoise & sterling slvr, bracelets, rings, necklaces. etc. Call, 494-9181, aft 5pm.

Michelin tires w/tubes, (4) 7.60x15, 3 v gd cond, 1 worn, \$60/4. Call, 527-7059.

Lg Zenith b&w TV & std, \$25; hrdry & travel case, \$15; elec curlers, \$7; vaporizer, \$2. Free, x3-5809.

Smith-Corona port typwrtr w/case, gd cond, \$15; lg wndw fan, GE 3 spd, perf, \$15; or best. Kate, x3-5088.

Raleigh girls bike, hrdly used, sm sz, \$65. Manuel, x3-5940.

Books: Lenin, State & Rev; Hobbes, Leviathan Pt I & II; Janson, History of Art, '70, \$10; March, Adv Organic Chem: Rx, Mech & Str, '68, \$13.50. Irene, 494-8539.

Guitar Guild Starfire IV elec acoustic, \$200 or heat Alec x \$707 Dorm

Nw rocking chr, unfin wd, \$20; rckt frames: Chemold mtl tennis, Bancroft squash, \$10/ea; Schwinn 27" bike spedomtr, nw, \$8; mtl desk lamp, brn, \$5. Irwin, x8-4226 Draper.

LP gas space htr, 3,000 BTU, used 1 seas, 1k nw, cost \$189, \$75. Don, x3-3839.

Snows w/rims, G78x14, Gdyr 4 ply, used 3 mos, \$40/pr. Call, 527-8456.

Prestone antifreeze, cheap; Look Nevada ski bndgs, \$50 or best. Rick, x3-3406.

Elkhart trumpet, ask \$60. Bob, x3-3521.

Porta crib, hichr, \$7.50/ea; Cosco goseat, \$4; 2 yr old sz 10" bike, \$15; Sears v gd elec sissors, \$5; monogrammer, \$25 nw, w/D, M, J, others avail Sears, \$10. Call, 494-8316, aft 6.

GE port dishwash, many features, exc cond, ask \$125. Call, 494-8456.

RCA gas 30" stove w/2 ovens, temp control brnr, exc cond, \$75; Sears port dishwash, btchr blk top, cprtone, \$75. Jim, x8-2877 Draper.

### Vehicles

'61. Studebaker Lark 8, eng & trans fine, nds minor work, real sleek mobile, yours for only \$100. Larry, 661-9215. kp try.

'64 Buick Electra, nds work, body exc cond, best. x0654 Dorm.

'66 Mustang, 6 cyl, auto, 60 K, gd run cond, poor body, \$400. Mary, x3-2779.

'66 Falcon 6's (2): 2 dr, stick, runs, nds work; auto, body totaled, many gd parts incl drive train; ideal mech/repair freak, Dennis, x8-3333 Draper.

'66 Ford Gal conv, cheap transp, \$185 or best; sew mach, \$25. Call, 491-3743.

'67 Chrysler Newport, nw snows, 55 K, \$450. Mary, x3-5656.

'68 Chevy Imp, 2 dr hdtp, 307 eng, auto, p st & br, vinyl uphol, int exc, some rust, 83 K, orig ownr, must sell quickly, replacement car waiting, \$475 or best. Irv, x5781 Linc.

'68 Firebird conv, 4 spd, gd cond, \$800 nego. Lil, x3-5610.

'68 Opel Kadet, gd cond, 4 spd, nw batt, nw starter mtr, 5 nw tires, 2 snows, 32 mpg, \$450. Dom, x3-6907.

'68 VW bug, cln, gd cond, \$850 or best. Marsha, x3-1874.

'68 VW Fstback, amfm, nw clutch, tires, brakes, 25 mpg, \$750. Call, 646-9561, aft 6pm.

'68 Cougar XR-7, eac cond, no rust, p st & br, ac, nw Michelin X's, ask \$1,450. Ed, x3-4612.

'70 Datsun 510, 4 dr sed, 96 K, some rust, nds work, best. Bob, x8-1425 Draper.

'72 Mustang conv, V8, 4 spd trans, nw snows on xtra whls, \$2,100. Leon, x7792 Linc.

'72 Triumph GT-6 hrdtp, exc cond, fm radio, rear defog, nw radials, map lite, wht, 20 K, best. Call, 498-5410, 2:30-11pm.

'73 Chevy Caprice est wng, 9 K, perf cond, roof rack, tint glass, radio, p st & br, ac, rugs, \$3,700 firm. Herman, x5800 Linc.

'74 Pinto wgn, ac, auto, 2,300 cc eng, 3 K, \$3,400. Mike, x461 Linc.

'71 Yamaha RD350, 5 K, front forks little out of alignment due to sm disagreement w/car, \$100/cc. x9623 Dorm.

Allston, outstanding BR apt, beaut view, avail 11/7, \$150. Goethert,

Bri, Comm Ave, BR, \$190. Diane,

Camb, nr Radcliffe, furn sunny mod 3 BR apt, sub Jan-June, 2 B, LR/DR

comb, K, garage, exc sec, \$700 + util.

Lex, charming hse, beaut grdns, 6 rms,

Nr N Conway, nw duplex chalet, slps 8-12, frpl, TV, 12/1-5/1. Dick Clark, exp. Eileen, x3-2701. x7139 Linc.

Parking

x3-7273.

x3-4319.

Note to parking sticker swappers; please remember to inform your super-

visor and the Campus Patrol of the

exchange you have made so that their

records accurately reflect your new

WI swap West for Windsor. Randy

WI swap West for Windsor. Bob,

WI swap Monroe for Albany, East or

WI swap West for East, 46-48 lot, or

Welding: port elec arc, gas welding & brazing, repair work & fabrication.

Translations, also certified, from & into Grmn. Tibi, 547-9652, evgs.

Gen typing done, reas, IBM Selec.

Exc pianist wants priv stu to give

lessons at her home, Eastgate, fee nego. Call, 494-0329, aft 5pm.

This list includes all non-academic jobs

currently available on the MIT campus.

Duplicate lists are posted each Tuesday

preceding Tech Talk publication date on the women's kiosk in Building 7,

outside the Office of Minority Affairs,

10-211, and in the Personnel office E19-239, on the day of Tech Talk

publication. Personnel interviewers will

refer any qualified applicants on all biweekly jobs Grades I-IV as soon as

possible after their receipt in Person-

Persons who are not MIT employees

should call the Perosnnel Office on extension 3-4251.

Employees at the Institute should continue to contact their Personnel Offices to apply for positions for

3-1591

3-4266

3-4267

3-4275

3-4269

3-2928

3-4278

3-1594

3-1595

inde-

which they feel they qualify.

(secretary - Joy Dukowitz)

(secretary - Mary Ann Foti)

DSR Staff in Center for Cancer Research will assist in biological

experiments with RNA tumor viruses,

primarily in cell culture, and also in

biochemical assays and specialized

techniques with fluourescence micro-

scopy. BA in biology, biochemistry or

chemistry required. Tissue culture experience preferred but not required.

DSR Staff in Center for Cancer

Research will conduct experiments in

lab studying genetics of animal cells in

tissue culture, including maintainance

and diverse manipulation of cells, use

of radioisotopes for physiological and

biochemical characterization. Will assume increasing responsibility for

pendent work. BA or MS in biological

science and some lab experience required. Tissue culture and/or radio-

isotope experience desirable. 74-1289-A (10/16).

standard lab operation and

Virginia Bishop

Mike Parr

Philip Knight

Sally Hansen

Evelyn Perez

Dick Higham

Claudia Liebesny

74-1282-R (10/16).

(secretary - Dixie Chin)

Pat Williams

Jack Newcomb

Positions Available

West. Charles, x3-3911.

Albany. Tom, x3-3179.

Miscellaneous

John, 924-2063.

Sandy, x3-5115.

nel.

Skiers: mod Mt Wash valley home, slps 8, fully furn, elec ht, dishwash, frpl, \$1,875 seas. Call, 536-4768, evgs.

### Animals

Want f mate for lovely, non-registered parking area. blk & tan shep, 2 yrs, Micheline, x3-6837. WI swap W

Nd home for affec altered m sealpt Siamese cat, have married, hse too sm for pet. Elisabeth Meyer, x408 Linc.

Rare breed Tibetan spaniel, f pups, Eng champ x Nepalese import. Call, 491-4873.

F kitten, 9 wks, litter-trained. Sue, x3-1458.

#### Lost and found

Lost: maroon MIT varsity jckt, fencing & lacrosse in wht letters. Jim Cook, x3-1468, lve msg.

Lost: gold chn bracelet w/3 gold medals attach, great sentimental value. Roxie, x3-2260.

Found: Oct 2, f wristwatch, Rm E53-3rd fl ladies rm. x3-3132.

Found: Lavern Williams, I found your wallet but can't find you. Frank George, 494-0060.

### Wanted

3 br hse to buy in Bel, New or Wtrtwn, spring or summer. '75. 354-0807.

Srvc manual for '64 Buick Wildcat. Omar, x5541 Linc.

Electronics for KLH 40, assembled or un. x9553 Dorm, lve msg.

Old aquariums, leaks ok, access not nded. John or Judi, 237-1527, aft 5pm.

Knowledgeable numismatist to evaluate some very old Amer money. Call, 899-1822.

Solid state amfm tuner, cheap. Wayne, x8-1463 Draper.

Back Bay, rmmate for 5 BR apt w/LR, eat-in-K, nr T, 7 min walk MIT, prtly furn, own rm, \$110. Call, 266-7797.

Radials, fit Volvo 144S (1.65x15): 2 snows, stl or other, or ireg gd cond. Murli, x3-6694.

Used downhill skis, approx 175 cm, gd cond. x8994 Dorm.

Pr football or soccer shoes w/rubber cleats, sz 12. Dick Samuels, x3-3120. Nw or nrly nw 1.65x15 unstud radial

Musical Theatre Guild nds 140,000

poptops! From soda or beer can pull tabs for set for My Fair Lady. Bring to

F majorette boots, wht, sz 61/2-7, wl

pay reas price. Mary, x8-2628 Draper.

Occasional babysitting evgs, 3 yr girl.

Sm rm humidifier, not steam. Rob,

Girl bike for 11 yr old. Pat, x3-1705.

To Linc labber who bought Len's Fabianos: do they fit? If not, I might

buy from you. Daniel Dern, x3-2980.

Sm fam nds living space while compl

thesis, nd 2 rms or equiv ares, wl

consider caretaking, ref, \$100. Call,

Tckts, 2, for Elton John concert Nov

snows, 2. Doug, x3-7193.

Stu Ctr Rm 439.

Kathy, x3-3302.

536-3723.

Kneissel 1200 skis, 200 cm w/bndgs & poles, used 1 seas, \$10 or best. Jean Ward, 876-6860, aft 6pm.

Coats: brn wool midi w/hood; v nice seude/fur trim; navy pea; suede jckt/ lining; navy quilted all-weath; sz 12-16; drapes, bdsprd. Pat, 536-8920, evgs, lve msg.

Used elec hrdry; camping equip: tent, stove, etc. Lindi, x3-4669.

K sz waterbed platform, best. x9807 Dorm.

Thick 9x12 dk blu shag rug, 6 mos, just cleaned, nw \$240, \$150; under pad \$10. Els, 876-6520, evgs.

Cork paneling, 36x12x<sup>1</sup>/<sub>2</sub>, 24 shts/boc, 2 boxes, \$12/ea; Dyna FM3 stereo tuner, \$40; Sears vac, \$15; muff for Rover 2000TC; slp bag, exc cond, \$10. Mark, x7856 Linc.

Snows, 6.50x13, 2 stud, 2 not, Sears All state 4 ply nylon, exc, best. Mike, x3-7177.

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\$200 or best. Alec, x8707 Dorm.

Baby items: grn velour pram w/detatch carriage & whls, exc cond, \$25; hichr, tbl sep into tbl & chr, \$8; scales, hrdly used, \$3; carseat, \$5; bath, \$1. Call 483-5011.

Zoom lens for Nikon camera, Auto-Vivitar 85-205 mm, 1:3.8, lk nw w/nw leath case, \$135. Call, 494-0471, evgs.

GE lited makeup mirror, \$5; hotplate & teflon frypan, \$6; misc sheets & cases, less yr, twn, \$5; mouton lamb coat sz 12-14, v warm, from Teich in Dallas, ask \$175. Call, 262-6153.

Atlantic wrdrobe suitcase, \$10; Sears vaporizer, \$5; portacrib, \$10; hichr, \$5; auto tow bar, \$15. Prof RE Curry, x3-7756.

Ski racks, 2, rf & trunk, \$10/ea; narrow beam driving lite, spare QI bulb, \$10; Remington cordless elec shaver, \$10; ½" case-hrd chn & lock. \$12; m 3 spd Schwinn bike, \$20; Bruce. x3-6226.

M Hyde fig skates sz 10, v gd cond, \$18; m hvy wool overcoat, Brit Def surplus, fit 5'7"-6', \$25. Bruce, x8378 Dorm. 20. Janet, x3-3991.

862-0548, evgs.

Table saw, 8 or 10". Dario Fortunato, x7713 Linc.

Auto-reverse tape rcrdr, any mdl, any cond, brkn OK, must be cheap; junk cassette or r-t-r rcrdrs. x0572 Dorm, evgs.

EZ alphabetic shorthand book, pt 2. Jane, x3-7167.

Motorcycle helmet. Nick, x3-2843.

Rmmate, lg Beac Hill apt, \$110. Call, 523-5439, aft 6.

Rims, fit '72 Dodge van, 14" whis. Wayne, x3-6107.

F to live w/doctor's fam, Nwtn, lite hsework & childsitting in informal atmosphere, ample free time for own pursuits. Reis, x3-5940.

### Carpools

WI form carpool to MIT from Hudson (Stow-Marlboro) area. Peter, 562-3027, evgs.

Ride vcty Cedar St, Som, to MIT daily, wl share exp. Diana, x3-7734.

Admin. Staff, Journals Manager at the MIT Press will be responsible for overall direction of Journals operation: budget, fiscal control, departmental workflow, staff supervision, production and subscription aspects, editor contact, assessment, acquisition and development of new journals. (Division currently publishes 4 quarterly and one monthly journal.) Experience with business/financial aspects of publishing and/or scholarly journals publishing. 74-1273-A (10/9).

Admin. Staff, Applications Analyst in the Information Processing Center will help scientific and engineering users in use of mathematical computer programs, including libraries; may occasionally conduct class or perform contract computation. Masters degree equivalent in engineering, applied math or subject applying modern numerical methods to practical problems and programming experience required. Acquaintance with scientific program libraries and variety or programming languages desirable. 74-1271-R (10/9).

Admin. Staff, Assistant for Fieldwork will work with faculty responsible for a variety of fieldwork and research activities in the Laboratory for Architecture and Planning and Law-Related Studies Program. Develop fieldwork

chr, 1½ B, moving to Hawaii, partial rry, financing avail. Owner, 862-6535, day or evg.

Call, 492-5339, aft 6pm.

Housing

x3-2402.

x3-6116.

N Reading, 3 BR, ranch cntry club area, frpl LR, lg K & DR area, comb wndws, ½ acre wd lot, 5 min to 93, 30 min MIT, sell \$42,900 or rent \$320 furn or un. Tom, x8-1510 Draper.

Som, nr Tufts, sub around 11/1 w/opt, stu w/mod K & B, ww, ac. x3-4162.

Wtrtown, spac 2 BR, avail 11/1, frpl, on bus, \$220 + ht. Terry, x3-5912. placements individually and in programs including identification of opportunities and funding sources; place students, prepare evaluation reports, program accounting and budgeting. Knowledge and familiarity with MIT fieldwork programs in above areas, demonstrated ability to work with students, faculty, and graduate work in educational administration or equivalent experience required. 74-1280-R (10/9).

DSR Staff Systems Programmer at Project MAC will perform system analysis and system programming on a research version of the Multics operating system. SM or EE degree required; 2-3 years programming experience in the supervisor of some advanced operating system required. Ability to contribute to research and work with students important. 73-1234-A (10/2).

DSR Staff Programmer Analyst in the Electronic Systems Laboratory will participate in analytical and experimental research project on networking of information-retrieval systems, programming, designing and evaluating computer interfaces to interconnect interactive information systems. PL/1 experience, BS or equivalent experience required. Knowledge of Multics, 370/168 (TSO), ARPANET or TYMNET desirable. 74-1199-R (9/25).

DSR Staff, Scientific Applications Programmer will work on planetary and astronomical data analysis; design, write and modify programs. Knowledge of PL/1 and FORTRAN required. Experience in physical sciences and 360 desirable, Computer science degree preferred. Please submit resume. 74-1206-A (9/25).

DSR Staff Engineer in Earth and Planetary Science will be responsible for development and construction of astronomical instrumentation for use on telescopes. Experience in analog and digital circuit design and construction, EE degree and/or training required. Please submit resume. 74-1207-A (9/25).

DSR Staff in Earth and Planetary Sciences will analyze oceanographic samples by atomic absorption spectroscopy, mass spectroscopy and wet chemistry. One month of appointment may be spent at sea for sample collection. Background in lab chemistry required. BS in Chem. preferred. 74-1177-A (9/25).

DSR Staff, Programmer in the Laboratory for Nuclear Science will maintain and develop computer-based acquisition system comprised of large mini-computer (PDP-11/45), Comac instrumentation and in-house electronics. EE or Physics degree, or equivalent required. Experience in systems development on mini-computer preferred. Work sites include MIT, BNL, Fermi Nat'l Lab. 74-1183-R (9/25).

Administrative Staff, Assistant Director of Finance, in the Office of the VP for Financial Operations will work on fiscal planning and budgeting, emphasizing short and long range strategies for fiscal balance. Extensive knowledge of academic programs, university finances, management accounting techniques required. MBA desirable. Submit resume. 74-1204-R (9/25)

DSR Staff for the Center for Cancer Research will culture mammalian cells in vitro, prepare and purify animal experiments on the molecular biology tumor viruses. Will use enzyme purification, nucleic acid hybridization, and sub-cellular fractionation techniques. BS in biology, chemistry or biochemistry and lab experience, preferably in molecular biology research, required. 74-1144-A (9/18).

DSR Staff at the Haystack Observatory in Westford, MA will guide and participate in development, design and implementation of electronic instrumentation and computer software for interferometer (UBLI) experiments, which will measure tectonic plate assist in analysis of motion; data. Physics & EE background with Ph.D. research experience in radio astrono-my. Computer programming, ability to work with radiometers and other radio astronomy instrumentation required, as well as previous experience with very long baseline interferometry. 74-1161-R (9/18).

to generate news stories that will interest the public. Must be college graduate with five years or more as science writer for major metropolitan newspaper or equivalent. Please submit resume. 74-1137-R (9/11).

DSR Staff-Temporary for the Joint Center for Urban Studies will supervise the work of graduate research assistants working on topics related to public sector labor relations in Boston. Ph.D. or work toward advanced degrees required. Experience with research on municipal employee labor relations, and as a supervisor important. Job duration, approximately 6 months. 74-1126-A (9/11).

DSR Staff at the National Magnet Laboratory will work on the Alcator thermonuclear experiment. Conceive, design, and carry out plasma diagnostic experiments using neutron, X-ray, optical, electrical, magnetic and microwave techniques. Will aid in the analysis and assessment of data. Ph.D. in plasma physics or related area required; familiarity with tokamak devices desirable. 74-1136-A (9/11).

DSR Staff-Physical Chemist in the Research Laboratory of Electronics must be experienced in molecular beam techniques and surface science to conduct experiments on semiconductors and related materials. Ph.D. in Physical Chemistry required. 74-1110-A (9/4).

DSR Staff-Scientific Programmer, in Earth and Planetary Sciences will work on analysis of celestial mechanics data from Mariner 9, MVM, Viking, Pioneer Venus Probes and other space related projects. Design, write, modify and run FORTRAN data-analysis program. Advanced knowledge of FORTRAN required. Background in math, physics, engineering; knowledge of IBM/ 360/JCL and assembler useful. Submit resumes. 74-1267-A (10/9).

DSR Staff for the Center for Cancer Research will perform a variety of duties in an immunologically oriented laboratory. Techniques will include a wide range of immunological methods and protein chemical fractionations using columns, polyacrylamide gels voltage paper electrophoresis. high isoelectric focusing, radioactive labelling. Bleed, inject, prepare cells from mice and rabbits; maintain cell and organ cultures. Applicant should have considerable laboratory work experience. Master's degree preferred. Superior manual dexterity required for performing a wide range of techniques. 74-885-R (8/7).

Administrative Staff-Assistant Director for a program which provides member industrial firms direct and convenient access to the Institute's educational and research programs, while at the same time providing the Institute with unrestricted financial assistance and professional relationships. Primary responsibility is liaison function between MIT faculty and research staff and representatives of participating companies. Requirements include bachelor's degree (MIT preferred, approximately two years of technical experience (preferably engineering) and management perspective (MBA preferred and ability to deal with executives of small to medium-size corporations). 74-1080-R (8/28).

DSR Staff, Scientific Programmer, in Meteorology will be responsible for running computer model of the stratosphere which is being used to assess ozone changes associated with high altitude aircraft and the space shuttle, and to produce output displays. Will adapt present code to Iliac IV computer. Considerable FORTRAN programming experience required. BA in mathematics or equivalent preferred. Some geophysical experience desirable. 74-1082-R (8/28).

Technical Assistant-Academic Staff in Nutrition and Food Science will perform specialized and routine chemical analyses on body fluids; responsible for operation and maintenance of mass spectrometer. A college degree in Chemistry or Biology required. Laboratory experience preferred. 74-1047-R (8/28). therapeutic devices and processes for human rehabilitation. Supervise technicians, participate in the supervision of theses and student projects. Education in biomedical engineering required. Mechanical and/or electrical engineering, experience in engineeringphysician collaboration very desirable. Innovation, creativity, ability to coresearch essential. Possibility of lecturer appointment in Mechanical Engineering. 74-869-R (7/31).

DSR Staff Economic ADvisor at the Joint Center for Urban Studies will advise the Presidents of MIT and Harvard on the state of the economy and labor force of Cambridge, and prospects for future economic de velopment; evaluate proposals in fields of health, education, housing, transportation, and community development in view of their impact on the local economy. Will be assisted by an committee of faculty and advisory administration members from both institutions. Doctoral degree or equivalent experience in urban economics, manpower, community development required. Ability to work effectively with local government and university officials. Ability to plan and conduct research. 74-753-A (7/17).

Technical Assistant-Academic Staff in Biology will work on a project concerned with the analysis of macro molecular changes in differentiating myoblasts. Will use cell and tissue culture techniques, electrophoresis, labelling with radioactive isotopes and general biochemical methods. Minimum BS degree in Biology, Biochemistry or related fields; laboratory experiene essential. Previous tissue culture experience preferred. 74-759-R (7/10).

DSR Staff in the Energy Lab must have minimum of 5 yrs experience in defining, securing support, organizing and supervising research in heat transfer related to energy production and utilization. Familiarity with MIT; experience in supervising student theses research and staff; Ph.D. in Mechanical Engineering required. 74-359-A (5/1).

Engineering Assistant-Exempt in the National Magnet Laboratory will set up experiments and take measurements of magnetic fields produced by humans and animals. Will work with hospital medical groups. Experience in biomedical research; strong experience in low-frequency electronics; knowledge of magnetics and cryogenics required. Flexible schedule necessary for occasional evening or weekend work. 74-1033-R (8/28).

Infirmary Staff Nurse-Exempt Bedside nurse in MIT Infirmary. Must be capable of administering first-aid and emergency treatment. Mass. Registered nurse with 1½-2 yrs experience, preferably in medical/surgical unit. Emergency Room or ICU experience desirable. 11pm-7am, weekend rotation. 74-1278-R (10/9).

Computer Operator IV for the Office of Administrative Information Systems will operate the IBM 370/135-145 and all peripheral equipment including disk/tape drives, card reader/punch printers, etc. Minimum one year experience required. Knowledge of DOS Job Control, Multi Programming experience important. 74-1066-A (8/28).

Food-Production Supervisor-Exempt in Food Service will be responsible for all operations of the kitchen and its food production personnel: daily production, inventory control, quality control and sanitation. Assist in menu planning and estimating food quantities. Manage administrative details in areas of personnel, payroll, budgeting, purchasing. Degree or experience in food production, menu planning, and operation of a food production facility required. Ability to train personnel important. Hours 6am-3pm, 2nd opening: irregular hours and weekends. 74-837-A (7/24).

Technical Assistant IV part-time in the Research Laboratory of the Electronics will set up, carryout and analyze experiments in the field of letter recognition, including complicated statistical analyses. May direct others involved in the project. BA in Psychology, experience in letter recognition experimentation and knowledge of parametric and non-parametric statistics required. 15-20 hrs/wk. 74-1255-A (10/9).

Technical Assistant V, part-time in Earth and Planetary Sciences. Will analyze sediments and data from deep sea drilling cores, perform routine geological and geophysical data processing, digitization and drafting. Geological background required. Drafting experience helpful. 74-1243-A (10/2).

Secretary V to Physics professor responsible for 30-person research group, will have overall responsibility for secretarial work of the office, including supervision of second person, will type research proposals, technical manuscripts, handle schedule and travel arrangements. Secretarial experience (moderate shorthand skill) required. Technical typing ability helpful. 74-1277-R (10/9).

Secretary IV or Senior Secretary V in the Office of Minority Affairs will handle general secretarial and administrative duties, organize and maintain files and records; monitor office accounts; schedule travel, meetings; answer routine correspondence, perform reception functions; prepare statistical reports. Excellent typing, shorthand required; ability to work independently, to organize; tact, maturity, poise, discretion essential in dealing with sensitive concerns of the office. 74-1132-R (9/11).

Secretary IV to professor and research staff in Aeronautics and Astronomics will handle a variety of duties including typing reports and class material (much technical), independently answering correspondence, composing letters from verbal instruction, maintaining files and accounting records, making travel arrangements. Technical typing ability required. Knowledge of MIT procedures preferred. 74-1290-R (10/16).

Secretary IV to professor in Civil Engineering will handle admission materials and various publicity information, maintain research and academic account records, some independent applicant correspondence, and perform other standard secretarial duties. Typing and organization skill, ability to work with minimum supervision and under deadline constraints required. 74-1291-R (10/16).

Secretary IV to 3 Civil Engineering professors will type correspondence and reports, answer telephone, maintain budget and payroll records. Technical typing skill, ability to deal with figures and assume independent responsibility required, 74-1223-A (10/2).

Secretary IV in Nutrition and Food Science will transcribe and type manuscripts, speeches, project proposals using shorthand and machine dictation, file, answer phones. Good typing required. Secretarial training and some knowledge of medical, biological and/ or chemical terminology helpful. 74-1263 (10/9).

Secretary IV will be member of active research teaching group in Civil Engineering (Transportation Systems Division), do large amount of technical typing, receptionist and other clerical responsibilities. Person should be able to set up work from drafts, proofread, and edit copy. Good technical typing skill required. 74-1270-A (10/9).

Secretary IV in Medical Dept. will transcribe medical case histories, type reports, maintain files, order medical records, provide limited assistance in routine medical examinations, maturity, accurate typing, secretarial experience medical terminology. 74-1198-R (9/25).

seismology professors and their research staff. Type and edit manuscripts, correspondence, class material (some technical); independently compose some correspondence; handle purchasing and accounting procedures. Excellent typing, editing, proofreading, grammar, spelling essential. Willingness to work independently occasionally under pressure important. 74-993-R (8/21).

Secretary IV will handle standard secretarial duties for a group of Mechanical Engineering professors. Schedule travel, appointments, seminars; type correspondence, monitor accounts: secretarial training or experience, shorthand/dictaphone, technical typing skills required. Ability to communicate and to deal with students and staff important. These positions available "job-sharing. аге for 74-949-R, 74-950-R. 74-951-R (8/14). Secretary IV for Mechanical Engineering will handle general secretarial duties for several professors in thermodynamics. Type technical reports and manuscripts; maintain accounts, Excellent typing required, technical typist preferred; knowledge of office procedures; ability to organize, set priorities important. 74-256-R (6/5).

Secretary IV to the Institute Secretary for Foundations will be responsible for budget accounting, file maintenance; research in reference materials, maintain communications and smooth relations with top level offices of the Institute. Excellent secretarial skills, ability to organize and use discretion required. Knowledge of MIT desirable. 74-332-R (4/24).

Secretary III-IV, part-time, to two professors in Civil Engineering working with environmental problems, will type technical manuscripts, edit reports, monitor accounts. Familiarity with MIT desirable. Typing skills and knowledge of office procedures required, 20 hours/week. 74-1233-A (10/2).

Secretary III-IV, part-time, in the Medical Department will provide typing and telephone support to the Psychiatry Service. Transcribe patient case histories, type correspondence reports, assist with others duties as necessary. Excellent typing required. Maturity in dealing with the sensitivity of patient needs is essential. 20 hours/week, 1:30pm-5:30pm Mon-Fri. 74-956-A (8/14).

Secretary III-IV to an Associate Director of the Alumni Fund. Will develop and maintain consolidated file for major gift development, compose some correspondence independently, arrange meetings, luncheons, do some statistical work. Good typing, shorthand/ speedwriting, and some college training required. Flair for writing and financial public relations background helpful. Will be trained to use IBM auto Typist. 74-1232-R, 74-1245-R (10/2).

Secretary III-IV to faculty members and research group in the Research Laboratory of Electronics. Will set up manuscripts from rough data, type technical and statistical material, compose letters from verbal instruction, and make appointments. Excellent typing skill required. 74-1231-R (10/2).

Secretary III-IV for three professors at the Sloan School will handle general secretarial duties in one-person office; make travel arrangements; type and arrange duplication of course materials including manuscript and technical typing. Secretarial training, very good typist willing to learn technical typing, and ability to organize and work with a minimum of supervision required. 74-829-R (9/25).

Secretary III or IV will work for one professor in Metallurgy and Materials Science. Type from machine or direct dictation, including some technical; maintain files, monitor OSP accounts, schedule travel; conduct moderate library research. Excellent typing, good command of English required. MIT experience, shorthand or speedwriting desirable. 74-1181-R (9/25).

Administrative Staff Industrial Liaison Officer will provide interface among MIT faculty, staff and representatives of member companies of the Program, major industrial firms in USA. Masters degree, preferably MBA or SM, Ind. Management, with BS in science or engineering required. Ability to communicate effectively with corporate executives as well as technical staff of companies is needed. 74-1168-R (9/18).

Administrative Staff-Assistant Director, Science Writer for the News Office will write, coordinate, rewrite for popular readership news having to do with results of research in areas of science, engineering and technology. Deal with news media, provide administrative officers and faculty with advice regarding news preparation and dissemination. Handle non-scientific or technical news as office work load may require. Must be curious and able DSR Staff Engineer in Earth and Planetary Science will be responsible for design, construction, and operation of prototype instruments to be used on ground-based telescopes and spacecraft for remote study of planets and other celestial bodies. Degree or strong background in EE required. Familiarity with charge couple and charge integrating devices, silicon vidicons, digital and analog circuit design, astronomical facilities necessary. 74-929-R (8/7).

DSR Staff in the Energy Laboratory will design, build, and operate large scale heat transfer apparatus. Graduate degree in heat transfer; extensive experience in designing, instrumenting, and conducting laboratory tests in heat transfer experiments with a minimum of supervision required. 74-858-a-A (7/31).

Biomedical Engineer-DSR Staff in the Mechanical Engineering Department will join MIT researchers, and Children's Hospital medical staff to work on the conception of diagnostic and Area Food Supervisor-Exempt in Food Service will be responsible for the unit serving areas: flow of food and utensils during meal periods; portion controls, sanitation. Will train and supervise pantry employees. Technical knowledge of food production; ability to work under pressure, irregular hours and weekends required. 74-835-A 74-836-A (7/24).

Technical Assistant IV in Architecture Photo Lab will maintain equipment, supplies and facilities, work with instructors as technical and teaching assistant, set up lab and classroom areas, prepare and replenish chemicals, produce slides and other teaching aids for classroom use. Experience as photographer and as a teacher of photography required (Hours: 5pm-1am). 74-1275-R (10/9).

Technical Assistant IV in Chemical Engineering will operate batch, ice crystallizer, calculate nucleation rates from reactor temperature profiles. Candidates should be capable of monitoring a repetitive research operation with ability to perform some mathematical equations. 37½ hr week. Must be able to work occasional overtime. Temporary through July, 1975, 74-1284-R (10/16). Secretary III-IV for two Metallurgy and Materials Science professors will type correspondence from dictaphone; type technical papers, manuscripts, class notes. Maintain files, monitor accounts. Excellent typing, proofreading skills, good command of English language required. MIT experience preferred. 74-1169-R (9/18).

Secretary IV to several Mechanical Engineering professors will handle correspondence, travel arrangements, shorthand/dictaphone skills, knowledge of bookkeeping required. Technical typing ability and secretarial schooling or experience preferred. This position is available for "job-sharing." 74-1031-R (8/28).

Secretary IV to the Assistant Dean for Student Affairs will type a variety of materials from dictaphone, provide secretarial support for fraternity-related affairs and assist with overflow work for two other staff members. Excellent typing and dictaphone skills required; ability to deal effectively with students to organize in the midst of confusion necessary. 74-1086-A (8/28).

Secretary IV in Earth and Planetary Science will handle a variety of Secretary III-IV in the MIT Associates Program will handle general secretarial duties for one staff member servicing industrial firms' participation in the Program in their dealings with MIT. Excellent office, shorthand and typing skills required. Secretarial or business school background and previous experience desired. 74-1165-R (9/18).

Secretary III-IV for two Metallurgy and Materials Science professors will type correspondence from dictaphone; type technical papers, manuscripts, research proposals, student reports, class notes. Maintain files, monitor accounts. Excellent typing, proofreading skills, good command of English language required. MIT experience preferred. 74-1169-R (9/18).

Secretary III-IV to three Nuclear Engineering professors will type technical reports, proposals, classnotes, manuscripts, correspondence from hand-

(Continued on page 8)

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## Music Notes

# Chamber Ensemble Joins Musical Roster

#### By WILLIAM T. STRUBLE Staff Writer

\*At MIT the sound of chamber music is heard everywhere in the land these days, and members of the newest ensemble will shortly make their debut.

They are the MIT Chamber Players who will give their first performance at MIT in a concert at 8pm Wednesday, Oct. 23, in Kresge Auditorium.

The concert is open to the public and admission will be free.

As their first program the Chamber Players will perform Brandenburg Concerto No. 6, BWV 1051, by J.S. Bach, Quintet for Piano and Winds in E Flat Major, K. 452, by Mozart, and Grand Nonetto, Opus 31, by Ludwig Spohr. The Nonetto is scored for woodwind quintet, violin, viola, cello and bass.

## IAP Notice

The IAP Announcement to Students, including the Activity Listing Form was distributed recently. Because of the SEIU strike, some members of the faculty and staff may not have received their copies. Additional copies are available from Joan Friebely in Design Services, Rm. 5-133, x3-2697.

(Continued from page 7) written drafts and dictaphone and/or

shorthand desirable. 74-1103-R (9/4).

Secretary III-IV to the Head of the Atomic and Solid State Division in Physics. Handle general secretarial duties, type correspondence reports (some technical), answer questions from students and faculty. Good typing and shorthand required; previous secretarial experience preferred. 74-961-R (8/14).

Secretary III-IV in Nuclear Engineering will handle general secretarial duties for several faculty and staff; type class materials, correspondence, manuscripts, reports from handwritten notes, transcription and dictaphone. Schedule travel, appointments, meetings. Good typing, organizational skills required; experience with dictaphone, technical typing, shorthand desired. 74-959-A (8/14).

Secretary III-IV for a group of Nuclear Engineering professors will type articles, proposals, class notes, correspondence from handwritten drafts, dictaphone; handle other general office duties. Good typing, knowledge of office procedures required; technical typing and shorthand skills desirable. Ability to organize and work independently important. 74-916-R (8/7).

Secretary III in the Center for Space Research Man-Vehicle Laboratory will perform standard secretarial duties for faculty and staff. Excellent typing and dictaphone skills required. Familiarity with medical terminology desirable. 74-1296-R (10/16).

Secretary III to an Urban Studies and Planning professor will type manuscripts, correspondence and reports; maintain office files; set up appointments; arrange travel. Excellent typing, previous secretarial experience dictaA guest player for the concert will be Jochen H. Heisenberg, MIT assistant professor of physics and cellist.

Prior to their MIT appearance, the Chamber Players will present a concert Oct. 18 at the Smithsonian Observatory. That concert is scheduled to be broadcast later on MITV.

The MIT Chamber Players, organized under the direction of violist Marcus Thompson, assistant professor of music and director of the MIT Chamber Music Society, is composed of about a dozen students, alumni of recent classes, and faculty who will perform in a variety of instrumental combinations according to the requirements of the compositions at hand. Violist Thompson will join the group in some performances.

The Oct. 23 performance is the first in an ambitious series of four concerts, the second of which will be an experimental midnight concert in the Lobby of Building 7 on Dec. 13 during the week before examinations. Program for that concert will include Bach's Fourth Brandenberg Concerto, Wagner's *Siegfried Idyll* in a version for 14 instrumentals, and Bach's *Musical Offering*.

The organization of the MIT Chamber Players brings the number of active MIT ensembles to 18.

several accounts, answer phone in busy office. Good typing, ability with figures required. Much internal liaison with staff and students. 17½ hours per week. 74-1236-R (10/2).

Secretary III, part-time in Sloan School will work with one professor in field of Economics, perform standard secretarial duties. Excellent typing, command of English grammar, and willingness to learn technical typing required. 20/25 hours per week, preferably evenings. 74-1150-R (10/2).

Secretary III to several staff members of the Center for Theoretical Physics. Excellent typing needed for technical reports, manuscripts and correspondence (technical typing skills helpful); ability to work effectively with students, guests, and faculty important. 74-883-R (8/7).

Secretary III to faculty and research group in Research Lab of Electronics will type manuscripts including technical material, make appointments, independently reply to correspondence and compose replies from oral instruction. Shorthand skill and excellent typing ability required. 74-1174-R (9/25).

Secretary III in Innovation Center of Aeronautics and Astronautics will type from dictaphone or shorthand notes, file, handle telephones. Good typing, spelling and grammar skills required. Some office experience helpful, 74-1147-A (9/18).

Secretary III in Personnel Office will be responsible for maintenance of resume flow system; acknowledgement to applicants, routing within Personnel Office, answering applicant questions. Type on MTST equipment, maintain log system, collect and tabulate hiring statistics. Detail-oriented person who enjoys telephone contact, familiarity with MTST required. 74-1166-A (9/18). Music for flute, recorder and harpsichord will be heard in the noon hour concert Thursday, Oct. 17 in the MIT Chapel.

Instrumentalists will be Dana Wood, flute and recorder, and Marion Shepp, harpsichord.

The program will include Renaissance pieces for recorder and harpsichord, Partita in B Flat Major, by J.S. Bach, and Sonata in D Minor, by Handel.

Music by Haydn, Bartok and Brahms will make up the program tonight in a concert to be presented by the Dimov Quartet, from Bulgaria, and MIT pianist John Buttrick.

The program, the first in the 1974-75 chamber music series sponsored by the MIT Music Section, will be at 8pm in Kresge Auditorium. It will be free and open to the public.

The program will consist of Quartet No. 5 in D Major, "l'Alouette," Opus 64, by Haydn, Quartet No. 4 by Bela Bartok, and Piano Quintet in F Minor, Opus 34, by Brahms.

The Dimov Quartet is composed of faculty members of the Conservatory of Music in Sofia, Bulgaria, and has the official title of "State Quartet."

Mr. Buttrick is director of music at MIT.

Gen. Library Asst. III, temporary, (voucher), will type master catalogue entries for computer terminal, perform clerical duties related to reclassification and cataloguing, type reference cards, prepare charge cards. Some college or business school training, above average typing and ability to interpret complex directions for computer terminal input required. Library experience helpful. 74-1266-R (10/9).

Technical Typist III will assist in the production of the Neurosciences Research Program Bulletin through use of IBM/MTST composer system. Type manuscripts; adapt format, scientific symbols, tabulations, etc. to style of the Bulletin; proofread copy; check bibliographic format. Good typing skills essential; knowledge of publications procedures. Appplicant can be trained on MTST. Off-campus location (Brookline); own transportation desirable. 74-985-R (8/28).

Accounting Clerk III-IV in Biology will prepare payroll reports, forecast sheets, travel and other vouchers, set up and maintain payroll accounting and budget files, and do other general office work as required. High school graduate, or equivalent, some accounting experience and typing skill required. 74-1281-R (10/16).

Senior Clerk III, Receptionist in Medical Department will schedule Surgical Clinic appointments, secure patient information, direct patients and visitors. Light typing, maturity, and previous working experience, preferably with public contact, required. 37½ hr week. 74-1258-R (10/16).

Senior Clerk IV Assistant to Corporation Analyst will handle information requests from senior Institute Officers regarding fund-raising objectives. Help maintain files, evaluate donors and prospects, write background memoranda. Excellent skills; dictaphone. Mature and experienced individual, 74-801-R (7/17).

## King to Discuss Minority Access

Melvin H. King, associate director of the Community Fellows Program and lecturer in urban studies and planning at MIT, will give a lecture, entitled "Access!" Thursday, Oct. 17, at 5:15pm in Rm 9-150.

Focus of the lecture will be problems minority persons have in gaining access to resources which enable them to deal with political and economic issues affecting their lives. Mr. King will discuss ways of answering such problems in constructive ways.

Respondents will be Bernice J. Miller, associate director of the Center for Urban Studies at the Harvard Graduate School of Education, and Stephen L. Hussein, director of the Minority Audience Poll now being taken in Boston and originator of the television show "Black News." The lecture is sponsored by the Technology and Culture Seminar.

A native of Boston's South End, Mr. King is now a State Representative from Wards 4 and 10. He is a former executive director of the Boston New Urban League and is nationally recognized as a consultant on community development. In his Community Fellows post, he works closely with community workers who come from throughout the United States for a year of study.

## Technology Matrons List Classes

The following Technology Matrons' classes are open to interested persons in the MIT Community when space permits:

CREWEL—Classes in both beginning and advanced crewel. The advanced group will meet with Mrs. Rene Fell on Wedneşdays, 9:30-11:30 in the Emma Rogers Room beginning October 23. For details of time, cost, and registration call Mrs. Bruce Wedlock, 648-6309. Beginners will meet with Mrs. Priscilla Gray on Tuesday mornings, 9:30-11:30, in the Emma Rogers Room beginning October 24. For details and registration contact Mrs. J.H. Holloman, 734-4763.

FLOWER ARRANGING—Mrs. Koichi Masubuchi will be offering Ikebana Lessons (Sogetsu School) to both beginning and advanced students at her home in Arlington. The two series of six lessons, Monday, 1-3pm and Wednesday, 9:30-11:30, are about to begin. For further details call Mrs. Mabel Nevins, 272-1556.

LANGUAGE LESSONS—French lessons, beginning and intermediate, will be taught by Mrs. Carolyn Bost in the Emma Rogers Room on Wednesday afternoons, beginning October 23. Spanish lessons, beginning and intermediate, will be taught by Mrs. Dorita Martinez on Tuesday or Thursday :10:00-11:30° at her home in Somerville. For further information about French or Spanish call Mrs. Louise Meeks, 259-0278.

YOGA—Beginning and intermediate yoga classes are being offered in the Emma Rogers Room on Monday evenings at 5:45 and 7:05 and Friday at 5:45. For further details call instructor, E. Turchinetz, 862-2613.

for submission to sponsors and Institute officers. Excellent typing skill required. 74-1293-R (10/16).

Clerk Typist II-III in Transfer Voucher Section of Comptroller's Accounting Office will type vouchers, research problems, clear and reconcile accounts. Good typing, accuracy with figures and knowledge of bookeeping required. 74-1294-R (10/16).

Jr. Diet Aide II part-time, in Nutrition and Food Science will prepare special diets for consumption by human experimental subjects under direction of Dietician or Senior Diet Aide, weigh formulas and check labeling. High school graduate, or equivalent, and ability to work independently required. Some experience in handling foods preferred. 24 hrs/week. 74-1285-A (10/16).

Lab Asst., part-time, in Arteriosclerosis Center will wash and care for diverse glassware, including radioactive material. Must be able to work with minimum supervision. 15 hrs/wk. 74-1283-R (10/16).

2nd Class Engineer must have a Mass second class Engineer's license or higher. Individual must be willing to work on any shift. 74-182-R (11/24).

3rd Class Engineer at the Power Plant may work any and all shifts and do all kinds of work, consistent with self sufficiency of the Plant. Mass. Third Class Stationary Engineer's license or a license of a higher grade required. Experience on high pressure boilers, oil and gas fired with automatic combustion controls, turbine driven auxiliaries: AC and DC generation, switchboard, and fed water control required, Some experience on turbine-driven refrigeration equipment is desirable. 74-422-A (5/29).

Tech A (E-M) for the Radioactivity

Groundsperson for Physical Plant must be physically qualified to lift heavy loads on trucks, such as rubbish, platforms, fertilizer, concrete blocks, lumber, gravel, equipment, snow. Experience in general grounds duties such as cutting grass, watering and care of lawns required. Mechanical aptitude helpful. Special physical examiniation, Mass. Driver's license required. Wed-Sun; 40 hour work week. 74-978-R (9/18).

Counter Person at the Student Center will be responsible for the set up of the service area: serve from the Hot Food Counter. Ability to understand English required. 10:30am-7:30pm Sat-Sun, Part-time (16 hours). 74-998-A (9/4).

Truck Driver for Physical Plant must have an unrestricted Class 1 or 2 Mass, Driver's license. One year experience in the operation of mechanical equipment such as: snow equipment and trucks, Ability to pass special physical examination required, Mechanical ability desired. Will work a schedule other than M-F and on shifts deterimined by needs. 74-726-R (9/11).

Mover for Physical Plant will transport various materials and equipment (medium or heavy nature) to designated locations; assist with snow removal. One year experience in general moving procedures, rigging, loading and unloading heavy equipment; ability to pass special physical examination, unrestricted Mass. Driver's license required. Experience in special handling of equipment such as oil filled transformers etc. desired, 74-773-R (9/11).

The following positions have been FILLED since the last issue of *Tech Talk*:

Secretary IV

74-1074-A Secretary IV 74-1103-R Secretary III-IV 74-972-R Secretary III 74-1114-A DSR Staff

phone skills essential. 74-972-R (8/14).

Secretary III in the Artificial Intelligence Laboratory will work with research in education group, maintain group library and documents, handle some accounting functions, type from handwritten drafts. Previous secretarial experience and/or college background desirable. 74-1251-R (10/9).

Secretary III in Physics will type correspondence and biophysics manuscripts, and perform other secretarial duties. Good general typing skill, technical typing ability or willingness to be trained required. 74-1274-R (10/9).

Secretary III to two professors in Sloan School will type manuscripts, proposals, crass material, handle administrative details of two Summer Session Programs, answer phones. Good typing and willingness to take responsibility required. 74-1268-R (10/9).

Secretary III part-time in Law-Related Studies Office. Will type, maintain

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Secretary III in Chemical Engineering will type quizzes, reports, technical manuscripts, proposals for three faculty members. Will arrange appointments, maintain student records, act as receptionist for the office. Dictation from tapes; technical typing experience preferred. Prompt, dependable individual with ability to follow through on details desired. 74-1105-R (9/4).

Secretary III in the Research Laboratory of Electronics will take shorthand, handle correspondence, make appointments, type course notes, problem sets, quizzes, some involving technical typing; will maintain a small library for journals and technical reports. Some secretarial experience or schooling required. 74-634-R (6/5).

Library Assistant III in Dewey Library will assist in processing newly catalogued and recatalogued monograph and serial items, follow up on outstanding orders, change and correct card catalogue records, file, other clerical assignments as required. Some typing; ability for detailed work with minimum supervision required. Previous library experience desirable. Occasionally evening or weekend duty on information desk. 74-1253-R (10/9). Clerk-Typist III, Temporary, 6 months, in the Alumni Ass'n will type corrections to Alumni records from handwritten questionnaires. Extremely accurate typing and ability to learn quickly required. 74-1211-A 74-1213-A, 74-1214-A (9/25).

Technical Typist III in Chemical Engineering will type large volumes of reports, manuscripts and proposals from rough drafts using a magnetic tape typewriter. Excellent typing skills required; ability to handle equations and chemical symbols, punctuation and paragraphing necessary. 74-741-R (7/10).

Cashier II-III in Student Accounts will prepare cash receipt slips, log mail receipts, cash personal checks, prepare checks for deposit and prove cash fund. Ability to handle large volume of cash transactions and to use adding machine required. 74-1292-A (10/16).

*Clerk Typist II-III* in Grants/Contracts Section of Comptrollers Accounting Office will type bills to industrial and government sponsors, and fiscal reports Center will assist in laboratory, re-74-1196-A search or analytical work; operate technical experimental apparatus. 74-1182-R experimental apparatus. 74-1249-R Maintain electronic equipment associ-74-805-A ated with controlled low-background 74-1237-R facility, breath radon, thoron equip-ment. Troubleshoot nuclear pulse 74-1234-R 74-1074-A instrumentation, construct, wire, per-74-1182-R form routine tasks, associated with 74-1246-R measurement of subjects and adminis-74-1240-R tration of laboratory. Strong back-74-1248-A 74-1191-A ground in pulse and digital circuits; experience in use of oscilloscopes and 74-766-R test instruments required. 74-922-R 74-1203-A (8/28). 74-685-R

Dishwasher, Part-time in Physics department will wash laboratory glassware and put away when dry. Mature, experienced person preferred. 6 hrs/wk. 74-1217 (9/25).

Waitresses/Waiters Part-time Waitresses at the Faculty Club will set up silver and china on dining room tables. Take number orders; serve food and beverages. Clear, clean and reset tables. Experience helpful, but not necessary. Shifts: M-F 11am-3pm. All positions may require weekend work. 74-1050-R, 74-1055-R, 74-1059-R (8/28) 74-1055-R, 74-1057-R, 74-1058-R (10/9).

Secretary III-IV Secretary III-IV **DSR Staff** Tech. Asst. IV Edit. Sec. IV Secretary IV Secretary III-IV Secretary III Clk. Typ. II-III Clerk II Tech, Asst. Reactor Op IV(cancl'd) Secretary III-IV Secretary IV 74-805-R DSR Staff 74-1210-A Secretary IV 74-1100-R Secretary IV 74-1261-R Lib. Gen. Asst. 74-1151-A DSR Staff 74-1276-A Sec. IV

The following positions are on HOLD pending final decision: 74-1227-R Asst. Comp. Op. III 74-1250-R Edit. Sec. IV Gen. Lib. Asst. III Lab. Asst. 74-1259-R 74-1102-R 74-1254-R Lib. Asst. III GAU 74-1210-A Secretary IV 74-1100-R Secretary IV 74-1220-R Admin. Staff 74-1046-R Clk, Typ. II