Moniz to Head Department of Physics

Professor Ernest J. Moniz will move from his present position as Director of the Bates Linear Accelerator Center to Head of the Department of Physics at M.I.T., effective September 1, 1991. In announcing the appointment Dean of Science, Robert Birgeneau, stated that, "Ernie combines outstanding research accomplishments with an excellent record of administration as the Director of Bates and a deep interest in education."

A Search Committee has been appointed by the Dean of Science to seek a new Director and is expected to submit its recommendations in September. The committee is chaired by Professor Jerome Friedman and includes active members of the Bates user community.

Professor Moniz received his doctorate in 1971 at Stanford University. His thesis, written under the supervision of Professor J. Dirk Walecka, was entitled, "On the Interaction of High Energy Particles with Nuclei." After two years at Saclay and at the University of Pennsylvania with the support of a National Science Foundation Postdoctoral Fellowship, he joined the M.I.T. faculty in 1973 and became Professor of Physics in 1983. His research has focussed on the theoretical description of intermediate energy electron- and pion-nucleus interaction and on the quark description of nuclear dynamics.

In 1983, Moniz was appointed Director of the Bates Laboratory. During his tenure, Bates continued to provide an effective environment for graduate student education, saw the development of significant new
research directions (such as the utilization of spin observables) and benefitted from strong collaborations with user groups in developing major experimental apparatus. With the completion of the South Hall Ring in 1992, coincidence experiments with high duty factor beams and a dedicated internal target program will open up important new opportunities for addressing key issues in nuclear physics.

"Crime Doesn’t Pay -- But it Costs A Lot"

Donna Henderson and Earl Haywood have agreed to be the Crime Prevention Coordinators for LNS in cooperation with the MIT Police Crime Prevention Unit.

The goal of the Crime Prevention Unit is to help the community become more aware of crime on campus, the risks involved, and to help us to take steps to reduce or eliminate such risks. The education toward these ends include programs such as exhibits, seminars, office visits, publications, orientation seminars for new employees and student groups, surveys on residences and office areas, information on home security, auto and bicycle theft protection, and office and lab protection measures.

Through a seminar, brochures, and handouts, we have learned that MIT and our neighbors are experiencing a high rate of crime. Recently MIT had a monthly average of thefts of 14 computers; 17 purses or wallets, plus cash from offices, and autos and bikes. Personal thefts last year totaled 406. Even more alarming are occasions of rape, assaults, firearms, obscene phone calls, sexual harassment, and drug and alcohol related misconduct.

Crime has cost the Lab a lot. Recently three cars were stolen from the Laboratory costing LNS over $7,000 and $500 was taken from an office safe.

In an emergency, MIT Police can be reached by dialing 100 from any regular Institute phone. There are 17 emergency phones located throughout the Institute that will put you in touch with the MIT Police immediately. Don’t wait for an emergency to find a phone. Familiarize yourself with these phones and where they are located. The map on the back of the Institute Directory shows where the phones are located. From off-campus, the phone no. for the MIT Police is 253-1212.

During the hours of darkness an on-campus escort service is available if you are traveling to or from a remote area. To have a police escort, call Campus Police, 3-2996.
In an emergency at Bates dial 100. During regular working hours your call be will be answered immediately at the front desk where you will be connected to the Chief Operator or other assistance depending upon the nature of the emergency. After hours the security personnel will answer. Dialing 5 on the Emergency Paging System will connect you to the loudspeaker where you may be heard throughout the Center.

Your coordinators are discussing potential programs such as: publications, bulletin boards and posters; visiting resource persons; personal letters; more newsletter articles and suggestion boxes.

We are especially interested in hearing from you. We would very much like to have your input and seek your participation, suggestions, and recommendations on this matter.

For example, one of the new programs suggested by the Coordinators was to publish the Police log on page two of the TechTalk. The most recent Crimewatch log reported about 25 incidents of thievery amounting to over $7,000 in 5 days.

Call or see Donna, 26-505, 8-5448 or Earl, 26-541, 3-2385 or at Bates 183-338. Don’t wait for an emergency.

Progress in Spin Physics Program at Bates

During the recently completed run period, there have been a number of significant advances in the spin physics program.

An experiment to measure the electric form factor of the neutron was completed, in which an 868 MeV recirculated, polarized beam was used in conjunction with a liquid deuterium target and a recoil neutron polarimeter built at Kent State University. Quasielastic scattering of the longitudinally polarized electron from the unpolarized targets was used to tag the recoil protons. This is the first time that a fifth structure function has been isolated. This experiment tests the spin-mixing components of the nucleon-nucleon potential.

An important development run took place for the Singlet Anomalous Magnetic Moment of the Proton using Longitudinal Elastic Electron Scattering (SAMPLE) experiment, in which parity-violating large-angle polarized electron-proton scattering will be measured. The viability of the large air Cerenkov detector was demonstrated and its signal-to-noise was greatly enhanced through shielding studies. The new Moeller polarimeter, which was designed for use in the SAMPLE experiment, demonstrated an unprecedented
signal-to-noise ratio during the checkout runs. The needed high power liquid hydrogen target and air Cerenkov detector systems are under construction at CalTech and Illinois respectively.

**LNS Hig-Plus Places 9th in Johnson Games**

The Johnson Games were held on May 4 as part of the celebration honoring M.I.T.’s new president, Charles Vest. Events ranged from almost athletic (obstacle course and basketball shoot), through mildly athletic (balloon toss), to totally silly (the lambada relay, where up to 8 team members had to dance across a field holding sheets of foam between them without using their hands). Sixty-three teams (about 2000 people) participated in the Games. Our team was composed primarily of members of the Heavy-Ion Group hence the name Hig-Plus.

In the final standings, LNS finished 9th out of 16 teams in our division. Top athletic honors went to **Maureen Cianciolo**, wife of graduate student Vince Cianciolo, for scoring more than half of the team’s points in the basketball shoot and leading the anchor leg of the Slide Rule Race in which we finished 2nd overall. **Brian Cole** and **Earl Haywood** excelled as the front and rear of our 3rd place lambada team.

Thanks to everyone who helped make it such a fun afternoon.

**With One Foot Over the Line For David Frisch**

*by Jean Flanagan*

A few years ago, I played tennis on the court next to Dave Frisch and his partners, Louie Smullin, Francis Low, and Herman Feshbach. These warriors, in their tennis whites, complete with arm bands, head bands, and knee braces, played as hard as any twenty-year old. Dave Frisch could smash the ball and still have time to yell at me.

"You served with your foot over the line. Watch it next time," he’d say. "You’re doing it again, watch!"

What I’ll miss most about Dave is his way of letting me know, as he did many others, that I was over the line, past it, not up to it, or that I had exceeded it. Very often he would call me or leave a message on my blackboard, *to just let me know* where I stood. He always surprised me with his knowledge of things about me that I felt sure *no one* had noticed. Admittedly, I was not always happy with his phone calls, especially when I missed the line, but flattered that he noticed and cared enough to offer his usually humorous comments.
Dave Frisch had a wonderful sense of humor -- dry and as quick as his laugh. He was patient enough to take the time “to set you straight,” “to put something in perspective.”

He was involved in a variety of pursuits, and was never afraid to try new ways of doing physics or learning and he had an enormous amount of intellectual curiosity.

During World War II, he worked on developing the atomic bomb. After the war he came to M.I.T. in 1946 and became a full professor in 1958 and retired in 1988. Frisch was a fellow of the American Physical Society and the American Academy of Arts and Science. He became a strong advocate of nuclear disarmament and edited a book on disarmament in 1960 called Arms Reduction.

A person is often judged on his or her accomplishments of which Dave had many. But when it all comes down to it, what do we remember most? -- kindness and caring. And Dave Frisch comes out a star, one that is sorely missed.

Dave Frisch leaves his wife, Rose; a son, Henry, a physicist at the Univ. of Chicago, and a daughter Ruth.

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Staff Notes

**Bernard Wadsworth**, Electronics Design Facility, addressed the American Electronics Association on June 26, 1991 at the Newton Marriott Hotel. The title of his talk was, “Custom ICs for High Energy Physics Applications.”

**Earl Haywood**, Property, received a certificate for dedicated service from the Department of the Air Force Chaplain Service at Westover Air Force Base. Earl, a retired Colonel, is a member of the Military Chaplains Association. During Desert Storm, Earl volunteered to assist active duty chaplains with welcoming home troops.

He says, “It really meant a lot to me to welcome home our troops. Our Vietnam Veterans were not welcomed home and it was a mistake.”

It was especially poignant for Earl to welcome these troops because his son, a Vietnam Vet, died a year after returning home from Nam.

**Eve Sullivan**, Theory Center, and her ten-year old son, Michael, took part in an Outdoor Midsummer Revels. The two performances were held at the Codman House, Lincoln, Ma. The program celebrated the
beginning of summer with traditional song, music and dance.

Yuan-Hann Chang, EMI Group, and Robert Singleton, Theory, were awarded fellowships by the SSC. Twenty-four outstanding young scholars were named recipients of this award. These fellowships are awarded to promising young scientists throughout the U.S., and are funded by the Texas National Research Laboratory Commission. Singleton and Chang will spend the academic year working at M.I.T. on scientific research related to the SSC. The selection of the fellows was made by a committee of scientists on the basis of ability, quality of research work proposed, and the relevance to the SSC.

**Lab Non-Sense Softball Team Makes Playoff.**

LNS was back in the Serious Slow Pitch Western Division of the M.I.T. Community Summer Softball League. Their season’s record was 7 wins and 3 losses. In the quarter-final playoffs LNS defeated Purchasing and Stores of the Off Shore Division by a score of 18-6. However, Mudville of the Western Division defeated LNS 7-6 in the semi-finals.

Team members are as follows:

Bob Abruzzio, Ernie Bisson, Co-Captain; Richie Campbell, James Carroll, Vince Cianciolo, Brian Cole, Ron D’Agostino, Frank DiFilippo, Jeff Grandy, Earl Haywood, Captain Emeritus; Michael Henderson, Steve Holmberg, John Lackey, Captain; Louise Morin, Chuck Parsons, Steve Pavlon, Bill Schmitt, Sal Silvestri, George Stephans, Vas Vutsadakis, and Darryl Williams.

_Congratulations on a Great Season._

"On the Matter of Particles" will be held May 14, 15, and 16, 1992. The LNS45 Committee is looking for your assistance with the guest list. Please submit names of former graduate students, colleagues, and former employees to Donna Henderson, 26-505.

Reminiscences have started to come in, but we would like submissions from everyone. If you can’t write it down, tape it. Send submissions to Jean Flanagan, 26-540.

A Time Line is up outside the Fiscal Office. Please add your comments to the Time Line. Here are some examples of what we would like to see:
“1952 - F. Eppling meets P. Demos in bar to discuss ‘future’ with LNS.”

“1962 - A. Scully arrives from DSR Office with form 65 from AEC.”

“1990 - The Year of Panic”

After we finish with the time line on campus it will be sent to Bates.

**Update on Bates BLAST Spectrometer**

The Conceptual Design Report for the Bates Large Acceptance Spectrometer Toroid (BLAST) is nearing completion. BLAST is an eight sector normal conducting toroidal field spectrometer with drift chambers, scintillators and Cerenkov detectors for particle identification and tracking. The large instrumented solid angle available in BLAST will be ideal for polarized internal target studies in the Bates South Hall Ring.

**Professor Louis S. Osborne Recognition**

A day in honor of Louis Osborne will take place on Friday, September 27. All are welcome and urged to participate.

Louis has completed four decades of notable research and teaching at MIT and many of those who received their doctorates under Lou’s tutelage have gone on to outstanding careers in academia and industry.

There will be an afternoon of talks -- physics and reminiscences -- by colleagues and former students. This will be in room 9-150 from 1 - 5 pm with a mid-session refreshment break. An evening banquet will take place at the MIT Faculty Club beginning with cocktails at 6:30 p.m.

Let’s show our appreciation of one of our own long-term people with a really big turnout and involvement from LNS people.

For reservations or additional information, please contact Dick Lanza (x3-2399) or Bill Lobar (x183-246).

**The next issue of LNS Newsletter will be in October. Please send submissions to 26-540.**

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*LNS Newsletter* is a publication of the Laboratory for Nuclear Science for the LNS Community. The following individuals contributed their time and energy to this issue:

George Dodson, Earl Haywood, Donna Henderson, and George Stephans

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