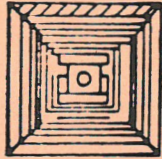


LAB. FOR NUCLEAR SCIENCE



M.I.T.

CAMBRIDGE, MA.

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Logo Committee

Logo-Locked

Please help the logo committee decide on a logo. Your official ballot is attached. The winner of this voting will receive a \$100 prize. Thanks to all the people in the Laboratory who contributed logos. The originals are posted outside the LNS Headquarter's Office for closer examination.

Deadline for voting is June 20th.

Higher Beam Energy at Bates

A new record for beam energy was set at the Bates Linear Accelerator on March 15, 1986 when an 811 MeV electron beam of 20 micro-amperes was delivered into the North Experimental Hall for electron scattering from ^3H and ^3He . The beam current was limited due to target requirements. This new high in energy marks the first use of the sixth transmitter. Previously, Bates used five transmitters, each having two 4 MW klystrons to power 22 accelerator sections. The sixth transmitter

increases the highest single pass energy from 400 MeV to 430 MeV in one pass and from 750 MeV to 840 MeV using the Beam Recirculation System. The transmitter was operating with the klystrons powered at a 2 MV level and will soon be processed up to the full 4 MV level to obtain over 840 MeV recirculated energy. In the coming year, we hope to increase the output power capability of the klystrons to achieve an electron beam energy of 1 GeV.

---Gary Nixon

Retirement Celebration for Robert Hulsizer

On May 2nd a symposium and dinner were held on the occasion of the retirement of Professor Robert I. Hulsizer. Professor Hulsizer worked at M.I.T. during WWII and got his Ph.D. working with Professor Bruno Rossi in LNS in 1948. After 15 years on the faculty at the University of Illinois, he returned to M.I.T. in 1964 where he has worked with the APC group of LNS on particle

physics experiments. He has also been active in educational work in the Physics Department. On his retirement, he plans to write a textbook on elementary physics for engineers.

The retirement celebration, called Robert I. Hulsizer Day, consisted of two functions. During the day there was a symposium of speakers who had worked with him over the last forty years in physics and education and spoke of their collaborations or of current work that had developed out of those collaborations. The speakers came from many parts of the United States and two from Europe. A cheery lunch in the Kolker room offered a mid-day break.

The evening session started with wine and cheese in the West Dining Room of Ashdown House and was followed by dinner in the dining room that was named "The Hulsizer Room" last June by the M.I.T. Corporation to recognize the Hulsizers' work as Housemasters of Ashdown House from 1974 to 1985. A sumptuous dinner was followed by remarks by three colleagues of Professor Hulsizer, and the playing of two Chopin Nocturnes by Professor Francis Low. All of the guests were then invited to join in singing a song about Professor Hulsizer; the words had been written by Dr. Al Kahn and the music was written and played on the piano by Professor Low.

The evening closed with the presentation of three gifts to Professor Hulsizer: a 20-inch globe of the world in a handsome mahogany stand, the TIMES Atlas of the World and an Old Town Canoe. In his remarks of gratitude for the occasion and the gifts

Professor Hulsizer reported that the organizing committee, which consisted of Professor Francis Low, Professor Irwin Pless and Dr. Elizabeth Hafen, had asked him what he wanted to do on retiring. His answer had been that he and his wife wanted to travel around the world. In acknowledging the appropriateness of the gifts, Professor Hulsizer said that the committee reasoned that, being an experimental physicist, all he needed to accomplish their goal was a canoe with two paddles, an atlas and a globe. He described a hypothetical scene in which he is paddling and his wife, Carol, sitting in the front of the canoe with the globe, says, "That must be Gibraltar up there. Turn left so we can go to Rome."



"Steve, If I've told you once I've told you a dozen times, if you don't turn in your vouchers you're not going!"

Improved Data Acquisition at Bates

"Feshbach Receives Medal of Science"

Institute Professor Herman Feshbach of the Department of Physics received the National Medal of Science at White House ceremonies on Wednesday, March 12. The announcement from the White House cited Feshbach's distinguished contributions to science, his extraordinary interest in teaching, and his total commitment to scientific excellence.

Dr. Feshbach, recognized as an international leader in nuclear theoretical physics, came to MIT after receiving the BS in 1937 from City College of New York. He received the PhD from MIT in 1942 and joined the faculty in 1945. From 1967-73 he was director of the Center for Theoretical Physics and from 1973-83 was head of the Department of Physics. Article taken from "The MIT Report", May 1986, Vol. XIV, No. 5

Construction of BIGBITE Spectrometer Completed

All components for the new BIGBITE spectrometer are now complete. This spectrometer will provide Bates Users with a large momentum bit ($\pm 25\%$), modest resolution ($< 1\%$) device for use in the South Experimental Hall. This will be the third magnetic spectrometer available in the hall. Final tests of the detectors and data acquisition system will occur when South Hall running begins this spring and BIGBITE will then be used in several approved experiments.

The planned upgrade of data acquisition hardware at Bates is now underway. Two Microvax II work stations have recently been purchased. The Microvax II should become the standard data taking computer at the Laboratory in the next few years. At present many groups at the Laboratory are taking data using software based on the Q system that was written at LAMPF. These codes are easily transportable to the Microvax. The switch to a standardized acquisition software system running on a 32-bit computer with a large memory capability should improve data taking efficiency and throughput. ---Gary Nixon

Newsworthy

Notes

LNS Administrative Guide is available in Headquarters. If you would like a copy, please call Jean Flanagan, at x3-2361.

Teri Radmer Smith, formerly Sr. Secretary of the APC Group, has become the mother of Asher Alexander born on Dec. 4.

What were those drafting room men doing in the 5th floor ladies' room at 8 a.m.?

Although to the normal passerby in the hallway of Building 26 it may have looked like the last shreds of a Shriners' Convention without the hats, Doug, Dave & Done were actually performing a rescue mission for a sleepy buyer (who shall remain nameless) who had lost a ring down the sink drain.

While Don and Dave struggled manfully with The Sink That Refused To Come Apart, Doug held the door open and fought off the invading troops of would-be female hand-washers. A nice round of applause to these chivalrous gents!

On Saturday, May 17, WBZ and MARE held a 10 K pledge walk for the benefit of Wednesday's Child. Jean Flanagan and Judy Gould, accompanied by Joan LeGros of the Provost's Office, completed the walk and would like to thank everyone who sponsored them.

New Employees and Promotions

Fadi Azzi is working at the Computer Center. Fadi is a Northeastern Coop student majoring in Electrical and Computer Engineering.

Peter Cameron has joined the Spin-Polarized Hydrogen group at Brookhaven National Lab.

Alan Pitas is an engineer with the Gran Sasso in Italy. Alan joins us from Fermilab.

Takashi Takaki has joined the Nuclear Theory Group at the Center for Theoretical Physics.

Evita Vulgaris completed a PhD with the Heavy Ion Group and is now a Sponsored Research Staff member with the Heavy Ion Group.

Abby Zolfagharis & Ken Jacobs have joined the Bates, Accelerator as Accelerator Physicists. Abby Zolfaghari joins us from DESY & Ken Jacobs is from the physics dept. at MIT.

Ernest E. Ihloff - is a mechanical engineer at Bates. Ernie is involved in the maintenance, design and fabrication of the vacuum system.

As part of the reorganization of LNS HQ Helen Basileco has joined the staff as a senior secretary. Helen is a recent graduate of Suffolk University and will attend Northeastern University as a graduate student in September.

Stephen G. Bradley - is the chief operator at Bates. He is a 1982 M.I.T. physics graduate.

Anthony Carter, a programmer at Bates Linear Accelerator, was promoted to Sponsored Research Technical Staff. Tony is a graduate of Lowell University.

Robert B. Clare - is a Research Scientist with the EMI-L3 group at CERN, Geneva, Switzerland.

Ingrid S. Clare - rejoined the EMI-L3 group at CERN, Geneva, Switzerland.

Marilyn Clements moved from teaching exercises at a local health spa to sitting behind a desk at the Center for Theoretical Physics. Marilyn is a Senior Secretary.

The Counter Spark Chamber group at Fermilab has two new Lab Assistants John Crandall and Fred Nettleingham who are assisting in the fabrication of the high energy detectors for SLD.

Dr. Stuart Fuess of the Counter Spark Chamber Group at Fermilab was promoted to Research Scientist.

Ragnhild Gunderson was promoted to Senior Secretary. Ragnhild is a member of the APC group.

Jeanne Hillery - Staff Accountant in LNS Fiscal Office. Jeanne transferred to the Laboratory from the Bursar's Office.

The new voice you hear when you dial Bates is Anne B. MacInnis. Anne is a Middleton resident.

Rachel Miesel is the Project Administrator for the Muon Chamber Group at CERN. She was recently promoted to Sponsored Res. Administrative Staff.

Mark A. Santosuosso is a Northeastern Coop Student at Bates. Mark is majoring in Electrical Engineering.

We want to welcome back after their surgery, Bill Lobar and Charlie Blake. Glad to see you back and feeling so well.

Thanks to Gary Nixon, Sheila Dodson, Donna Henderson, Judy Gould, Don Souza, and Helen Basilesco for their help in compiling this newsletter.

Compiled and edited by Jean P. Flanagan.



Sears banished to hall for smoking breaks.