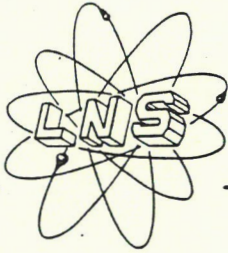


# LNS NEWS



Laboratory for Nuclear Science  
M.I.T. Cambridge, Ma.

---

January 19, 1989

Vol. 7 No. 1

---

## Promotions

Stephan G. Bradley has been promoted to Assistant Group Leader of the Bates Operations Group.

Ray Cowan was promoted to Research Scientist. Dr. Cowan is a member of the Lepton Quark Studies Group and is presently working at SLAC.

Sheila Dodson was promoted to Sponsored Research Administrative Staff. Ms. Dodson has administrative responsibilities related to the Third Hall Ring project at Bates and the 1990 PANIC conference.

Joy Gurrie was promoted to Sponsored Research Staff and has been designated CAD/CAM design draftsman at Bates.

Kenneth F. Hatch has been promoted to Supervisor of Electrical Services at Bates.

Stephen Holmberg was promoted to Tech A (mech) at Bates.

Richard V. Keating was promoted to Group Leader for the Bates Operations Group. Dick continues in his role as Bates Safety Officer.

Tomas Russ has been promoted to Research Engineer at Bates. Mr. Russ is responsible for developing a control system for the South Hall Ring and for integrating this with the Linac control system.

Alfredo Saab has been promoted to Research Engineer at Bates. Mr. Saab is responsible for two major parts of the South Hall Ring design and construction -- the beam instrumentation and the fast magnetic kicker.

Cole Sibley was promoted to Sponsored Research Staff as an Electronics Engineer at Bates.

George Stephens was promoted to Principal Research Scientist. Dr. Stephens is a member of the Heavy Ion Group.

#### New Appointments

Maria Bavaro, a recent graduate of Salem State College, is a Senior Office Assistant in the Fiscal Office.

Alan Beatrice transferred from the Plasma Fusion Center and is an Administrative Assistant in the Fiscal Office. Alan is a graduate of Bryant and Stratton Business College.

Michael J. Dugan was appointed as a particle theoretical physicist at the Center for Theoretical Physics. Dr. Dugan received his Ph.D. from Harvard University.

Vincent G. Dunne was appointed as a Visiting Scientist at the Center for Theoretical Physics. Dr. Dunne is visiting from the Imperial College of Science and Technology, London.

Michael Fero was appointed as a Sponsored Research Staff member with the Lepton Quark Studies group at SLAC. Dr. Fero is engaged in the construction of the Central Drift Chamber for the SLD project.

Yuji Koike was appointed as a Sponsored Research Staff member. Dr. Koike is a theoretical particle physicist.

David A. Lations is a Technician B (Mechanical) at the Bates Linac. Mr. Lations transferred from the National Magnet Laboratory.

Alberto Lerda joined the Center for Theoretical Physics as particle theoretical physicist. Dr. Lerda received his Ph.D. from SUNY.

Steven J. Pavlon has joined the UA1 group from Harvard University. Mr. Pavlon is responsible for the set-up, maintenance, and operation of the UA1 group Emulator Farm.

David B. Scoggins transferred from Lincoln Laboratory to Bates Linac where he is an Electrical Technician B.

Konstanty C. Sumorok (Sham) was appointed as a Principal Research Scientist and has major responsibility for the UA1 Group. Dr. Sumorok previously held a position at Harvard University.

## News from Bates

by William Lobar

On November 4, all Bates personnel enjoyed a Chinese luncheon sponsored by the Soda Fund. Food and set-ups were taken care of by Hamid Moazeni and John Mumley who were assisted by others in the Radiation Group.

The North Shore Physics Teachers Association held its November meeting at the Bates site. A talk on the Center was given by Wade Sapp and tours were conducted by Don Biron, Gerry Fallon, and John Zumbro. The business meeting was devoted to a discussion on the teaching needs of high school physics teachers and how Bates might be able to help them. Jean Flanagan presented a plan for a teacher training course in nuclear and particle physics. Discussion on this and related topics ensued.

On November 16, a group of about 50 students from the Hamilton-Wenham High School visited Bates. A talk given by Wade Sapp was followed by tours led by Betsy Beise, Steve Bradley, Jed DeCobert, and Krishna Kumar.

The Bates Motorcycle Club was represented at the Mile Track National Motorcycle Jamboree by Dayton Fitch, Hamid Moazeni, and John Mumley. The dirt track racing event took place in Syracuse, NY on September 11.

Dan Baker of the Bates Running Club took first prize in the over 50 class of the Duxbury Turkey Run on November 19. Dan did the 4.5 miles in the very creditable time of 28 min. 14 sec. As a consequence, Dan enjoyed Thanksgiving dinner by feasting on his prize.

In the Radiation Protection Group at Bates, John Quattrochi has been moved to staff upon receipt of an advanced degree in Health Physics, and filling his spot is Rosario Silvestri formerly with M/A-Com Corp. Rosario has an Associate Degree in Electricity from ATI and has just welcomed his first baby, a son.

## Noteworthy Notes

The next Safety Seminar will be held on Friday, February 24, from 10 to 12 noon, in Room E25-111. The Department of Earth, Atmospheric and Planetary Science will host this session. All campus employees who have not attended are required to attend.

Marita E. Filios, Administrative Secretary for the Medium Energy Group, was married to Gary Paul Magnant on September 24 at Saint Brigid's Church in Amherst. Marita left LNS at the end of

December for a position in the Catering Department at the Ritz-Carlton Hotel in Boston. Marita wishes to add that she will miss MIT and the people in LNS. Also, she would like to wish everyone joy and good health in the future.

Maria Bavaro, Fiscal Office, announced her engagement to Michael DiMauro. They plan to be married in August 1989.

Frank and Jean Flanagan are the proud parents of a daughter Jennifer, 8 years old.

# LNS PHYSICS NEWS

January 1989

Prof. Samuel C.C. Ting has been elected to the U.S.S.R. Academy of Sciences for his scientific merits in the field of elementary particle physics. It is the Academy's belief that his election as a foreign member will further strengthen the relations of the U.S.S.R. and U.S.A. Institute Professor Emeritus Victor F. Weisskopf is the only other professor at MIT known to have been so honored by this unusual distinction.

Prof. Henry Kendall and Prof. Jerome Friedman will receive the 1989 W.K.H. Panofsky Prize with Dr. Richard E. Taylor of the Stanford Linear Accelerator Center. The Prize will be awarded at the May 1989 meeting of the American Physical Society in Baltimore.

The \$5,000 prize, which will be shared by the three recipients, is sponsored by friends of renowned physicist W.K.H. Panofsky, the former director of SLAC. The Panofsky Prize Committee citation reads: "For their leadership in the first experiments on deep inelastic scattering of electrons with protons, deuterons, and heavier nuclei. These lepton-nucleon scattering experiments, which were the vehicle for the discovery of the "scaling" phenomenon, give the first direct evidence for a charged, pointlike substructure inside the nucleon. The results of these high quality experiments still stand and have been supported and extended to higher energies and momentum transfer by later experiments with electrons, muons, and neutrinos."

Prof. Wit Busza appeared on Channel 27 to discuss the SLC experiment at SLAC. Prof. Lee Grodzins was interviewed by Bryant Gumbel on "Good Morning America." Prof. Grodzins discussed new bomb detection techniques.

## **Bates-NIKHEF Collaboration Meeting**

On January 4-6, 1989, members of the Bates staff met with several of their counterparts from NIKHEF to exchange ideas and experiences on the pulse stretcher rings and internal targets

being built at each facility. The three-day meeting took place at Bates and the format called for formal talks in the morning and informal, small group discussions in the afternoon. This is the first in a series of semi-annual meetings to be held as these projects progress. The exchange of information, critical evaluation of approaches to problems, and possible sharing of R&D efforts should be of mutual benefit.

The formal presentations are here listed:

Bates Project Overview - S. Kowalski  
NIKHEF Project Overview - G. Luijckx  
SHR Design/Performance - J. Flanz  
Pulse Stretcher Design/Performance - R. Maas  
Instabilities: NIKHEF - R. Maas  
Instabilities/Collective Effects - K. Jacobs  
Mechanical Systems - R.D. Biron  
Physics: NIKHEF PSR - K. DeJager  
Physics: Bates SHR - R. Milner  
RF Systems/Kickers - P. Bruinsma  
Control System - T. Russ  
Alignment System - W. Sapp  
RF Systems - A. Zolfaghari  
Magnetic Measurements - J. Zumbro  
Vacuum System - E. Ihloff

#### **Bates Linac Controls Workshop**

An informal workshop on accelerator control systems was held at the Bates Center on November 15 and 16. The discussion was chaired by Jay Flanz and Tomas Russ and the participants were Ivan So and Edmond Desmond (BNL), Peter Lucas (FNAL), Robert Stuewe (LAMPF), David Rice (Cornell) Douglas Murray (Saskatoon), Rolf Bork (CEBAF), Ken Jacobs and Zdenek Radouch (Bates).

The purpose of this workshop was to exchange current thoughts about accelerator controls systems, to identify important features in such systems, to evaluate present trends, and finally, to analyze the proposed Bates South Hall Ring Control System.

Developments on control systems are underway at all of the laboratories represented. Interest was expressed in future meetings such as this one where detailed discussion in an informal atmosphere is possible.

Institute Professor Emeritus Victor F. Weisskopf shared the 1988 Enrico Fermi Award with Richard B. Setlow a biophysicist from Brookhaven National Laboratory.

The Fermi Award is the highest scientific award given by the Department of Energy and includes a presidential citation, a good medal and a \$100,000 honorarium for each recipient. The award recognizes outstanding scientific and technical achievement in the development, use or control of atomic energy.

## Michael Riordan Awarded 1988 Science-Writing Prize

Dr. Michael Riordan, Science Information Officer at the Stanford Linear Accelerator Center (SLAC), formerly of LNS as a graduate student and Sponsored Research Staff, is the 1988 winner of the American Institute of Physics Science-Writing Award in Physics and Astronomy for his book, The Hunting of the Quark, published by Simon & Schuster, Inc. This annual prize is awarded to a scientist for noteworthy writing about physics and astronomy.

The award was presented on Tuesday, October 25, at a banquet in the IBM Thomas J. Watson Research Center in Yorktown Heights, N.Y. during AIP's annual Corporate Associates meeting. A check for \$3,000 along with a citation was presented to Dr. Riordan.

The Hunting of the Quark is derived largely from Riordan's experiences as a graduate student at MIT and SLAC, where he worked with Friedman, Kendall, and Taylor on the inelastic electron scattering experiments which resulted in the discovery of quarks.

To submit news for the next LNS News and LNS Physics News, send information to LNS News 26-505.

Jean P. Flanagan, Editor

Contributing Editors: R. Adams, S. Fowler, and W. Lobar