BRESCIA/AIP

Clifford M. Will (left), winner of AIP science writing prize, is congratulated at the AIP corporate associates meeting by his editor at Basic Books, Richard Liebman-Smith; Roland Schmitt of GE is in the background.

of Technology. He was a postdoctoral fellow at the University of Chicago from 1972 to 1974. From 1974 to 1981 he was an assistant professor of physics at Stanford University. He joined the faculty at Washington University in 1981 and became a full professor in 1985.

Will's previous book, *Theory and Experiment in Gravitational Physics*, was published in 1981 by Cambridge University Press.

MUSEUMS MARK TERCENTENARY OF NEWTON'S PRINCIPIA

A number of museums paid tribute this year to the tercentenary of Isaac Newton's *Philosophiae Naturalis Principia Mathematica*, popularly known as the *Principia*.

The Smithsonian's National Museum of American History hosted an exhibit entitled "Isaac Newton and the *Principia*: 300 Years," which ran from 23 March to 5 October. The exhibit is scheduled to open at the IBM Gallery of Science and Art in New York on 24 November and run through 30 January. It features a display of eight cases containing copies of first editions of the *Principia* as well as copies of some of Newton's work on optics; published works by authors such as Pierre Simon Laplace and Joseph Louis Lagrange highlighting 18th-century scientific reaction to the *Principia*; theological and philosophical literature praising or excoriating the mathematical determinism of Newton's logic and the materialism of his science, and more popular literature such as Voltaire's interpretation of the *Principia* and a book entitled *Isaac Newton's Philosophy Explained for the Use of the Ladies* by an Italian author named Algarotti. Portraits and engravings of Newton adorn the show, which also displays an early 19th-century model of an orrery—a mechanical model of the Solar System—and a Franklin static-electricity machine.

According to Paul Theerman, curator of the exhibit, the display was centrally located and well attended.

Many of the books featured at the Smithsonian were contributed from the private collection of Bern Dibner, a Connecticut industrialist whose lifelong interest has been to collect precious volumes spanning much of scientific history. In 1936 he founded the Burndy Library, now located in South Norwalk, Connecticut, and at age 90 he is still its director. Since March the Burndy Library has displayed, in seven cases, a copy of the first edition of the *Principia*; the first French- and English-language editions and early commentaries; a financial statement dated 1711 and signed by Newton; numerous portraits of Newton and a marble bust of him.

According to Philip Weimerskirch, the assistant director, the library has published several historical works on Newton including, this year, *The Newtonian Revolution* by I. Bernard Cohen.

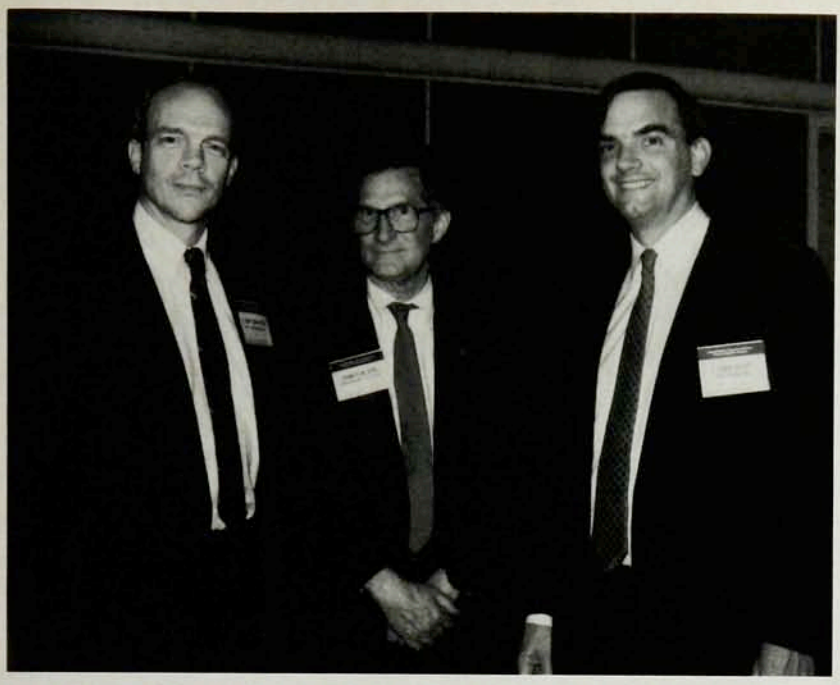
In Cambridge, England, the Whipple Museum of the History of Science, which is part of the science history department at the University of Cambridge, also paid its respects to Newton and his contribution to science. The exhibit, consisting of ten cases, opened on 5 May and closed on 4 December. It included all early editions of the *Principia*, books from Newton's library, prisms that Newton may have used in optical experiments and a lens that belonged to the scientist. It also featured 18th-century manuscripts that focused on the *Principia*'s historical background, scientific achievements of the age and reaction to the *Principia*.

With funding from Shell, the Whipple produced a set of ten wall charts condensing and outlining the exhibit. The posters, containing both text and illustrations, were sold at low prices to educational institutions in England and, to a lesser extent, in the United States. Only 500 sets remain of the 2000 sets originally produced. Although the posters have not been publicized in the United States, the Whipple is willing to make them available abroad. For a price of £13 or the dollar equivalent, the museum will ship the charts airmail; the cost is £6 for normal freight. Write to James Bennett, Whipple Museum of the History of Science, Free School Lane, Cambridge CB2 3RH, Great Britain.

—Richard Hart

GELATT, KIRKPATRICK HONORED BY AIP FOR INDUSTRY RESEARCH

C. Daniel Gelatt Jr, president of Northern Micrographics Inc in La Crosse, Wisconsin, and E. Scott Kirkpatrick, manager of the workstations systems laboratory at the IBM Thomas J. Watson Research Center, were honored this year with AIP's 1987–88 Prize for Industrial Applications of Physics. The prize recognizes their discovery and development of a new method to optimize the layout of complex integrated circuits, called "simulated annealing." AIP Executive Director Kenneth W. Ford presented the $5000 prize to Gelatt and Kirkpatrick on 1 October during the joint meeting of IUPAP and the AIP corporate associates in Washington.



DRESCIA/AIP

C. Daniel Gelatt Jr (right) and E. Scott Kirkpatrick (left), winners of AIP industry research award, are congratulated by AIP Executive Director Kenneth Ford at the corporate associates meeting.

Gelatt and Kirkpatrick devised their technique for solving complicated optimization problems by regarding the optimum as analogous to the ground state in a disordered system (see PHYSICS TODAY, May 1982, page 17). The technique is powerful and has many practical applications to variants of the traveling salesman problem.

Gelatt received his BA and MS in physics from the University of Wisonsin, Madison, in 1969, and his PhD in physics from Harvard in 1974. He taught at Harvard from 1975 to 1980, when he joined the staff at the Watson Research Center. He became vice president for sales at Northern Micrographics in 1982 and president a year later.

Kirkpatrick received his BA from Princeton in 1963 and his PhD in physics from Harvard in 1969. He was a research associate at the University of Chicago from 1969 to 1971, when he joined the staff at IBM Research as a member of the physical sciences department. In 1982 he moved to the computer science department.

AIP SURVEY FINDS SHARP INCREASE IN 1985–86 PHYSICS POSTDOCS

The number of physics PhDs accepting postdoctoral positions increased dramatically in the 1985–86 academic year and the number of individuals earning terminal master's degrees in physics also increased quite sharply. These are the major findings of AIP's 1987 graduate student survey, which has just been released. The market for physics PhDs remains healthy, the survey found, but jobs may be slightly tighter for holders of terminal master's degrees.

The number of individuals earning physics doctorates was 1051 in 1986, up 8% from 1985; the number of foreign-born physics PhDs, 34% of the total, was up 12%. Only 1% of 1986 PhD recipients had not received a job offer or a post-doctoral grant by the time the survey was done, and 49% had received multiple offers.

The number of responding PhDs who accepted postdocs in 1986 increased 29% from 1985's figure. The proportion of US PhD recipients taking postdocs in 1986 grew to 49% from 42% the year before; the proportion of foreign-born PhDs who took postdocs went to 68% from 56%.

Susanne Ellis, author of the graduate survey, believes that the trend toward postdocs may reflect the ample demand for physicists. "A person who feels that finding a permanent position is not difficult," she says, "is more likely to accept temporary employment as a postdoc to pursue research interests developed in the dissertation."

The total number of students earning terminal master's degrees climbed 12% in 1985–86. The proportion who had a single job offer at the time the survey was done was nearly 75%, up more than 20 percentage points from the year before, but the proportion with two or more job offers dropped by a similar margin.

Women were slightly better represented at all degree levels in 1986 than in 1985, most of all at the master's level. At the same time, three times as many responding master's recipients went to work for the military in 1986 as in 1985.

Astrophysicists were even more marketable in 1986 than other physicists. All obtained at least one job offer, and 69% received multiple offers.

For a copy of the 1987 *Graduate Student Survey* write to Susanne D. Ellis, Education and Employment Statistics Division, American Institute of Physics, 355 East 45th Street, New York NY 10017.

LYMAN AND GATES ARE PROMOTED TO HIGH POSITIONS AT JPL

Two high-level personnel changes took place at Caltech's Jet Propulsion Laboratory this summer: Peter T. Lyman, assistant laboratory director for telecommunications and data acquisition, became deputy director, succeeding Robert J. Parks; and Clarence R. Gates, assistant laboratory director for the technical divisions, became associate director, succeeding Fred H. Felberg.

In 24 years at JPL, Lyman has worked as a spacecraft development specialist and served as director of spacecraft operations for several NASA deep-space missions. He received his BA, a master's in naval architecture and a doctorate in mechanical engineering from the University of California, Berkeley.

Gates, who has been with JPL for 27 years, led the team that designed the lab's first three-axis-stabilized spacecraft, laying the foundation for the Ranger and Mariner missions. He has managed several JPL divisions. Gates went to college at the University of Oklahoma and has a PhD from Caltech. ■