

"A valuable, single-volume reference on the devices that bridge the analog and digital worlds. I highly recommend it."

—Lawrence G. Rubin, MIT,
in *Physics Today*

"This book is very practical and useful, and this reviewer highly recommends it...."

—V.J. Lumelsky, IEEE Robotics
and Automation Magazine



AIP HANDBOOK OF MODERN SENSORS

PHYSICS, DESIGNS, AND APPLICATIONS

Jacob Fraden, Vice President of
Research, Thermoscan, Inc.

Fundamental Principles that Underlie the Cutting-Edge Components

In clear, concise language, this comprehensive reference provides a wealth of information on sensor design and application—practical information you can refer to daily on the job or in the classroom.

At Last, a State-of-the-Art Survey

The sensors covered range from simple photodiodes to more complex devices. The *AIP Handbook* highlights devices that are less well-known, whose technology is still being refined, and whose use permits the measurement of variables that were previously inaccessible.

Let the Handbook Work for You!

If you work in electrical, mechanical, or civil engineering, medical instrumentation, robotics, automation, and security, you will find this an easy-to-use guide for virtually any measurement need.

1993, 552 pages, ISBN 1-56396-108-3
Cloth, \$80.00 **Members \$64.00***



To order, call 1-800-809-2247

Fax: (802) 864-7626. Or mail check or PO
(including \$3.00 for shipping) to:

**AIP
PRESS**

American Institute of Physics
c/o AIDC • P.O. Box 20
Williston, VT 05495

*Members of AIP Member Societies are entitled
to a 20% discount.

trayed; they do not steal ideas from papers they review, nor do they deliberately scuttle papers from the competition in their field. They are honest in their reviews (as far as I can tell) and, if they are sometimes slow, it should be remembered that they receive no compensation whatever for performing what has been represented to them as a service. Anonymity can be used as a cover for scurrilous behavior, to be sure; but in these litigious and sometimes violent times, a cover can also protect the conscientious reviewer from reactions that go beyond the verbal.

In fact, however, I am personally opposed to anonymous reviewing; the perception, if not the fact, of abuses of the practice is too widespread to be ignored. It is rather the publication, not the review, that ought properly to be anonymous.

Whenever I offer this suggestion it is regarded as a joke; but I am not joking. Anonymous publication removes many levels of personal commitment from the process. Moreover, if the idea were universally adopted, I predict it would radically reduce the exponential expansion in size and number of physics journals. It is also in the proper spirit of the enterprise of physics, which surely opposes all personal ambition in the investigation of the mysteries of the world.

The only difficulty in implementing anonymous publication is that there is a species of institutional inertia that opposes such changes, for consistency also would require the discontinuation of physics "prizes" and of anonymity in grant applications. Because anonymous publication can only work if it is universally adopted, it is unlikely that it will be implemented in the near future.

LLOYD KANNENBERG

*University of Massachusetts at Lowell
Lowell, Massachusetts*

George W. Hill Was Eccentric—but Central to Astronomy

In their article on American astronomy (January, page 35), John Lankford and Ricky Slavings make passing reference to a remarkable celestial mechanician, George William Hill (even if they do give his middle name incorrectly as Washington).

Hill made significant contributions to the development of 19th-century American astronomy. Working under the long-time superintendent of the Nautical Almanac Office, Simon Newcomb (who called him "the greatest

master of mathematical astronomy during the last quarter of the nineteenth century"¹), Hill improved the mutual-perturbation theories for Jupiter and Saturn and added in various ways to the body of lunar knowledge, including what is now referred to as Hill's equation.

As Lankford and Slavings write, Hill was indeed "eccentric." When Columbia University hired him to lecture on celestial mechanics, he refused to accept payment either for teaching the few students who could grasp the subject or for the written-out lectures that he donated to the university.

Reference

1. Quoted in Carolyn Eisele, "George William Hill," in *Dictionary of Scientific Biography*, vol. 6, Scribner's, New York (1972), p. 398.

ROY D. NORTH

Falls Church, Virginia

Third World Physicists Seek Donations of Scientific Publications

There are many small institutes of physics, especially in third world countries, that do not have the benefit of even modest funding but manage to labor on fueled by a love of physics on a shoestring. These institutes are very anxious to receive donations of textbooks, journals and preprints. As an example, an October 1995 electronic newsletter on physics included a plea from the physics department of a Vietnamese university, which called the lack of scientific publications its "more serious difficulty."

Such calls for assistance raise the issue of whether there are organizations, such as the American Physical Society, that serve—or are willing to serve—as collection and distribution centers for materials that could greatly benefit physics teachers and students around the world.

TATIANA DIVENS
Vienna, Virginia

Corrections

December 1995, page 92—W. J. Cocke was the individual who did the relativistic corrections for the Global Positioning System. See W. J. Cocke, "Relativistic Corrections for Terrestrial Clock Synchronization," *Physical Review Letters*, vol. 16 (1966), p. 662.

March 1996, page 128—Didier Sornette is affiliated primarily with the National Center for Science Research, in Paris. ■