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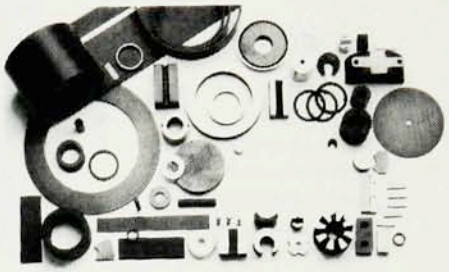

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AWARD

1990 Recipient

Matthew P. A. Fisher
IBM Thomas J. Watson Research Center

The Department of Physics at the
University of Illinois at Urbana-Champaign

proudly announces the recipient of the 1990 William L. McMillan Award.

Dr. Fisher received this award for his innovative work on the superconductor-insulator transition, the vortex glass phase in high temperature superconductors, and macroscopic quantum phenomena.

The award is presented annually to a young condensed-matter Physicist for distinguished accomplishments in condensed-matter physics. The recipient is invited to the Urbana-Champaign campus to present the annual William L. McMillan lecture.

Nominations for next year's award are due March 1, 1991.

Send nominations to:

The William L. McMillan Award Committee
c/o Department of Physics
University of Illinois at Urbana-Champaign
203 Loomis Laboratory of Physics
1110 West Green Street
Urbana, Illinois 61801

Nominations should include vitae and documentation of scientific accomplishments in condensed matter physics.

Quickenden, R. N. Tilbury, Photochem. Photobiol. **37**, 337 (1983); Radiat. Res. **102**, 254 (1985). T. I. Quickenden, A. J. Matich, S. H. Pung, R. N. Tilbury, Radiat. Res. **117**, 145 (1989).

2. G. Cilento, in *Chemical and Biological Generation of Excited States*, W. Adam, G. Cilento, eds., Academic, New York (1982), p. 250.

VESTEL B. SHIRLEY
Louisiana State University
Baton Rouge, Louisiana

5/90

Bringing the *Citation Index* up to the Past

The *Science Citation Index* has proved an enormously valuable tool in researching the present-day literature and in conducting historical research on how science has developed. (Granted, caution must be exercised in its use, but some of the precautionary steps to be taken are clear, provided one is willing to put in the effort and time required to do the job properly.)

There is, however, one problem in using this resource, namely its comparatively late start. Many of the major developments in science this century preceded the beginning of the *SCI*. I would therefore like to make the following proposal: that at least within the physics–astronomy community, a systematic effort be made to extend the *SCI* backwards in time to fill the gap. The coverage of the *SCI* has in fact in recent times been extended back to include the period after the second world war; the proposal here is to continue back to cover essentially all of modern physics.

This might seem a daunting proposal until one recalls the exponential expansion of science in recent decades. The total published works of this century prior to the second world war will probably produce the equivalent of one year's citations at the present rate, and all previous physics and astronomy published since, say, 1600, probably half of that. Thus the cost should not really be prohibitive.

Why not set a goal of incorporating all the missing years into the *SCI* within the next five years? Setting some suitable starting date for the sources covered would require some research; I would guess that somewhere about 1850 might be a good time to choose (significantly before the major rise in physics and astronomy understanding toward the end of the 19th century). The choice of which journals to cover would be an issue, and access to some of them might pose difficulties, but both problems should be easily overcome. One

could aim to fund the project either by attracting some specific funding from the physics–astronomy community, NSF and so on, and some from subscribers to the resulting volumes; or as an addition to the standard *SCI* volumes, at a small increase in cost to current subscribers.

I hope this idea will strike a chord with others. I believe it would make available a valuable resource for the study of the history and development of science.

GEORGE F. R. ELLIS
International School for Advanced Studies
Trieste, Italy
3/90

Of Book Reviews and Benchmarks

A review of my book *Essentials of Modern Physics* appeared in the December 1989 issue (page 64). The reviewer claimed to be making an objective comparison between my book and a "benchmark" text. Not having the space for all his factual errors, I would like to point out just three.

He claims that my "discussion of elementary particles is brief to the point of complete inadequacy." The facts are that I discuss every topic that the benchmark text does, and discuss or mention—albeit briefly because of the level of the intended student audience—several other topics. I do not consider verbosity a true measure of depth of coverage and consciously avoid it, yet I take at least as many pages and words in my discussion, including many more worked-out examples. One factual comparison might have been between our respective treatments of the Big Bang. The benchmark text treats it as an explosion in space of an evidently spherical universe with a definite edge, which has left a plasma shell (with the Earth at its center) emitting Doppler-shifted wavelengths characteristic of 2.7 K or 2.9 K or 3 K; my text disagrees with these assertions.

The reviewer then claims that "nuclear physics does not fare much better." Of course, every author must pick and choose, but my text has three times the number of exclusive topics found in the benchmark. Topics discussed in my text but not the benchmark range from Q values for beta decay and threshold energy to synchrotron radiation and muon-catalyzed fusion. Again the page and word counts are comparable.

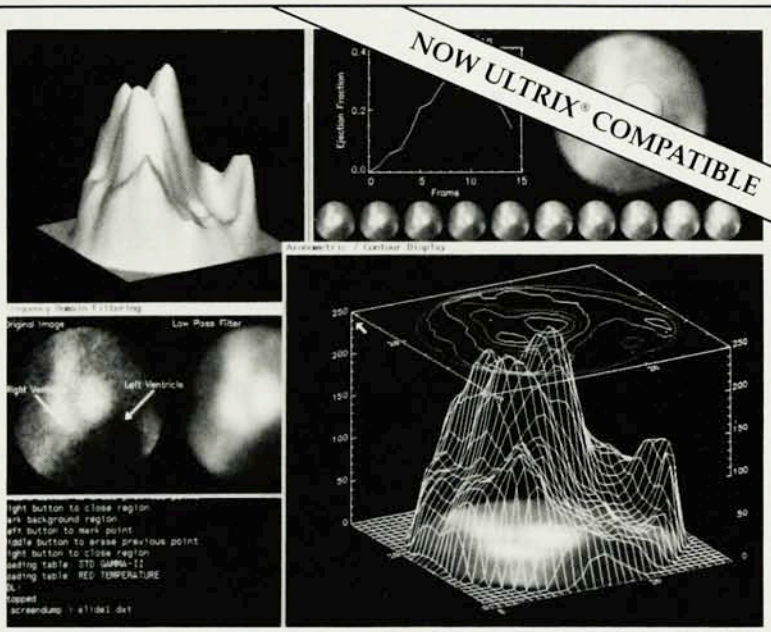
The reviewer's disparaging remark that my book "would be inappropriate for schools with a rigorous curriculum" is countered by the fact that it has been adopted by many leading universities, in the US and overseas, in groups such as the Ivy League, Big Ten and Big Eight.

T. R. SANDIN
North Carolina Agricultural and Technical State University
Greensboro, North Carolina
3/90

Corrections

September, page 47—The photo of Ludwig Boltzmann is from the University of Vienna.

August, page BG9—Barry N. Taylor is head of the Fundamental Constants Data Center at the National Institute of Standards and Technology. ■



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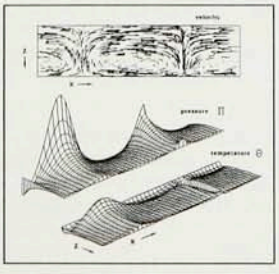

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