

fact, most of the material is available in other publications. What new considerations are presented are directed at the expert or the administrator, as might be expected in this type of meeting. More than one-third of the papers are printed in either German or French with 18 out of 62 in German. The main value of this volume to a reader who did not attend this symposium is the large number of detailed references covering all phases of the problem.

The papers cover such diverse fields as: planning; fall-out patterns; non-nuclear accidents involving nuclear materials; fall-out assessment and measurement; the hazards associated with charged-particle emission; biological and clinical manifestations; measurement requirements; dosimetry; food contamination and systems analyses. These proceedings are useful to persons directly concerned with civil defense and disaster planning, as the volume does represent the latest thinking of experts.

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Acoustics for engineers

SIMPLE AND COMPLEX VIBRATORY SYSTEMS. By Eugen Skudrzyk. 514 pp. Pennsylvania State Univ. Press, University Park, 1968. \$24.50

by GEORGE WEISS

It is well at the outset to state the scope of this book, as the title is not too suggestive. The author deals with the acoustics of linear systems, with emphasis on the vibration of plates, beams and more complicated configurations. In the introduction the author gives a short exposition of modern circuit theory, and throughout the book he exploits those results fully by the use of electrical analogies to mechanical circuit problems.

The book itself is obviously intended for the engineer rather than for the physicist. Indeed, the explanation and derivation of underlying physical laws is sketchy in the extreme and will not satisfy any scientist who wants insight into the physics of vibratory phenomena. Particularly disturbing is the lack of any mention of nonlinear effects in vibration. Although variational methods for dealing with acous-

tic problems are mentioned, and there have been substantial recent advances in the subject, nothing is done with the methods. An entire chapter is devoted to statistical force fields. The discussion, however, is presented in a very heavy-handed manner and is principally devoted to the calculation of second-order correlations and spectral densities. There is little insight, for the reader who is unfamiliar with the topic, into such important topics as the generation of sound by turbulence. On the other hand, a chapter devoted to the sound radiation by complex structures is quite good and reflects the author's own research.

To summarize, this book would be quite unsatisfactory as an introduction to acoustical phenomena, but it does give a good presentation of some aspects of an engineering interest.

* * *

The reviewer is currently at Imperial College, in the mathematics department, on a Fulbright Fellowship.

NEW BOOKS

CONFERENCE PROCEEDINGS

Annals of the New York Academy of Sciences, Vol 157, Art. 1: Data Extraction and Processing of Optical Images in the Medical and Biological Sciences. Peter D. Albertson, Marc Krauss and Karen Sussell, eds. 530 pp. New York Academy of Sciences, 1969. \$21.50

Proceedings of the Conference on the Electron Capture and Higher Order Processes in Nuclear Decays, Vols. 1-3. D. Berényi, ed. (Debrecen, Hungary, 15-18 July 1968) 122 pp., 268 pp., 495 pp. Eötvös Lóránd Physical Society, Budapest, 1968.

Support and Testing of Large Astronomical Mirrors. D. L. Crawford, A. B. Meinel and Martha W. Stockton, eds. (Tucson, Ariz., 4-6 Dec. 1966) 252 pp. Kitt Peak National Observatory and Univ. of Arizona, 1968.

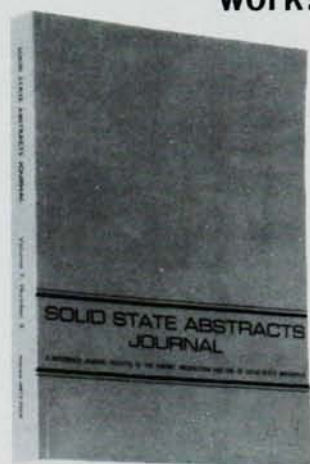
Nobel Symposium, Vol. 8: Elementary Particle Theory: Relativistic Groups and Analyticity. Nils Svartholm, ed. (Aspenäsgråden, Lerum, Sweden, 19-25 May 1968) Wiley (Interscience), New York, 1969. \$31.75

Eleventh International Conference on Low Temperature Physics, Vols. 1 and 2. J. F. Allen, D. M. Finlayson and D. M. McCall, eds. (St. Andrews, Scotland, 21-28 Aug. 1968) 699 pp. and 1394 pp. Univ. St. Andrews, Scotland, 1969.

Proceedings of the International Conference on Statistical Mechanics. S. Ono, R. Abe, T. Izuyama and M. Suzuki, eds. (Kyoto, Japan, 9-14 Sept. 1968) \$16.00

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Les Particules Élémentaires: Physique de Hautes Énergies. By Théó Kahan. 126 pp. Presses Universitaires de France, Paris, 1969.

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