

who are annoyed by the fuss the youngsters are making over functional analysis.

In this book the authors base themselves on the Daniell point of view, and can thus present a unified basic theory of the real variable. It is excellently translated and beautifully produced. The translator and the authors have coöperated well, and much additional material appears that was not in the Russian original.

The first chapter gives a brief account of the Riemann integral in Euclidean space, but from then on we spend most of the time in general space. We return for a moment to consider n -dimensional Lebesgue integration (as a special case of general theory) and also for Stieltjes integration. The latter in particular is presented in an original and interesting way. The explanation is lucid and is assisted by apt and clearly worked examples. The exercises at the ends of chapters are designed to help the student understand basic ideas rather than to catch him out.

This fine text will certainly find a well merited place—even on the sagging bookshelves of our time.

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Updating an encyclopedia

McGRAW-HILL YEARBOOK OF SCIENCE AND TECHNOLOGY. 451 pp. McGraw-Hill, New York, 1966. \$24.00 (\$14.40 to subscribers)

by Robert L. Weber

The fifth in an annual series designed to update both the 1960 and the revised 1966 editions of the 15-volume *Encyclopedia*, this volume contains nine principal survey articles and some 150 shorter articles that emphasize recent developments. The nine feature-length articles are entitled air pollution, biosonar, computers and the mind, molecular biology, mycotoxins, origin and evolution of the atmosphere, programmed learning, terrestrial navigation and world protein needs.

The shorter articles deal with such subjects as air-traffic control, astronomy (with interesting comments on

costs), cells, deep-sea drilling, electrical utility industry, food engineering, geothermal research, hearing in insects, lasers, mass rail transportation, meteorological satellites, muscles, noise level, plant growth, power plants, protein synthesis, radioactive isotopes, upper-atmosphere composition and transplutonium-element production.

In this supplementary volume, perhaps more than in the *Encyclopedia*, a number of writers are describing their own work. The attractive styling and clear illustrations of earlier volumes are continued. The book is cased in a new-type durable vinyl binding. The books should be useful to a broad range of ages and encourage readers to look beyond fields already familiar to them.

Geophysical constants

HANDBOOK OF PHYSICAL CONSTANTS. (Revised edition). Sydney P. Clark Jr, ed. 587 pp. The Geological Society of America, New York, 1966. \$8.75

by Robert L. Weber

In this latest edition of a handbook originally published in 1942, thirty contributors have compiled in twenty-seven sections a wide variety of physical constants needed for geological and geophysical calculations. Each section is introduced with a brief comment on the significance of the data and extensive references are cited. A critical attitude is encouraged by inclusion of measurements of ostensibly the same physical property by different observers. Difficulties of measurement receive some explanation. One also finds reassuring remarks, such as: "At the Preliminary Mohole Site. . . the measured heat flow. . . agrees well with nearby measurements made with a probe." The compilers remark that one function of their work should be to draw attention to areas where more adequate data are needed.

Among the types of data included in this handbook are: composition of rocks, abundances of elements and isotopes, densities, x-ray data, thermal and elastic constants, seismic velocities, strength, viscosity, phase rela-



Non-Compact Groups in Particle Physics

Edited by Yutze Chow
University of Wisconsin

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