new junior-level course for students in the humanities and social sciences, I shall want to explore some of this territory. I think that I might be able to use some of these interviews as assigned readings prior to some discussions. But the interviews are generally too brief for any topic to have been explored much beyond its barest introduction, and far too often a potentially interesting line is abandoned too rapidly (for example, Salam, on the problem of basic science in a developing country).

For those who have followed the concurrence of science and public policy for some years and have some awareness of trends in research, this book will make occasional light reading, but I am afraid that for nonscientists much might be incomprehensible, not least because of the jargon and brevity of the editorial notes.

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The reviewer, who teaches at Washington University, has been active for several years in presenting scientific information to a wide audience through the St. Louis Committee for Nuclear Information.

Applied math reference

DISTRIBUTIONS AND THE BOUNDARY VALUES OF ANALYTIC FUNCTIONS. By E. J. Beltrami, M. R. Wohlers. 116 pp. Academic Press, New York, 1967. $6.50

by Garrison Sposito

This interesting little book describes the way in which analytic functions of a single variable whose boundary values are distributions, rather than square-integrable functions, may be dealt with rigorously. In particular, the class of functions analytic in a half plane and of polynomial growth at infinity are discussed at length and are shown to possess a relation with their boundary values comparable to that known for functions of the Hardy-Lebesgue class. The subject is relevant to physics because the so-called "vacuum expectation" values arising in the theory of quantized fields are distributional boundary values of analytic functions of polynominal growth at infinity.

The book is divided into three chapters, two of which are introductory. The first is a summary of the relevant parts of the theory of distributions. (As the discussion is somewhat abbreviated, the serious reader, unless he is an expert, should have at hand a good text on functional analysis.) Careful attention is paid here to the extension of the Fourier transform to tempered distributions. The second chapter discusses the Laplace transform in the same sense and offers the important distributional analog of the Paley-Wiener theorem. The last chapter is based largely upon the authors' research and deals with the generalization of the Cauchy integral to include the representation of analytic functions having distributional boundary values. Such work has great practical significance in that it would evidently widen the class of functions that can be considered in the solutions of the Dirichlet and modified Hilbert problems. (The latter, of course, includes the Wiener-Hopf technique.) At the end of the book are two short appendices on the representation of positive-real matrices and the extension of the results of the third chapter to functions of several variables.

Distributions and the Boundary Values of Analytic Functions can be recommended as a useful addition to the libraries of the interested applied mathematician and the quantum-field theorist, especially if the memorable little tome by Streater and Wightman is already upon the shelf.

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The reviewer, an assistant professor of physics at Sonoma State College, Rohnert Park, California, is interested in quantum statistical mechanics and mathematical physics.

Modern numerical techniques

REVIEW OF MATHEMATICAL METHODS FOR DIGITAL COMPUTERS, Vol. 2. A. Ralston, H. S. Wilf, eds. 287 pp. Wiley, New York, 1967. $11.95

by George H. Weiss

If one wants to learn the elements of numerical analysis, this volume is not a suitable introduction. However, if one wants a summary of selected modern numerical techniques together with a flow-chart and in some cases, a FORTRAN program, this volume together with the first of this series will fit the bill in admirable fashion. Some of the topics taken up are the solution of ill-conditioned linear equations, numerical single and multiple quadrature, spline functions, the solution of polynominal and transcendental equations, random-number generators and rational Chebyshev approximation. Although this is not for the general reader, it is a must for those in computer installations.

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George H. Weiss is chief of the Physical Sciences Laboratory, Division of Computer Research and Technology, National Institutes of Health.

Warmly recommended thermometry

THE MEASUREMENT OF TEMPERATURE. By J. A. Hall. 96 pp. Barnes & Noble, New York, 1966. Paper $3.75

by Martin E. Straumanis

The author states in the "Preface" that this book has been written to replace two books, published in 1953 by the Institute of Physics Monographs for Students entitled *Fundamentals of Thermometry* and *Practical Thermometry* because they were out of print and in many respects, out-of-date. The present book of the well known author contains, of course, the matter of the earlier volumes in a considerably revised form and new developments in the field of temperature measurement.

The book starts with the temperature scales (absolute and thermodynamic), with the discussion concerning the absolute zero point (-273.15 ± 0.01°C) and with the International Practical Scale of Temperature. Thereby the distinction between reproducibility (precision) and accuracy of the measurements is emphasized. For instance, although the melting point of gold can be reproduced with a resistance thermometer within ± 0.01 °C, the accuracy of this point, comparing the results of various investigators, is only ± 0.5 °C, because of systematic errors.

The next chapters deal with the